

This Page Is Inserted by IFW Operations
and is not a part of the Official Record

BEST AVAILABLE IMAGES

Defective images within this document are accurate representations of the original documents submitted by the applicant.

Defects in the images may include (but are not limited to):

- BLACK BORDERS
- TEXT CUT OFF AT TOP, BOTTOM OR SIDES
- FADED TEXT
- ILLEGIBLE TEXT
- SKEWED/SLANTED IMAGES
- COLORED PHOTOS
- BLACK OR VERY BLACK AND WHITE DARK PHOTOS
- GRAY SCALE DOCUMENTS

IMAGES ARE BEST AVAILABLE COPY.

**As rescanning documents *will not* correct images,
please do not report the images to the
Image Problem Mailbox.**

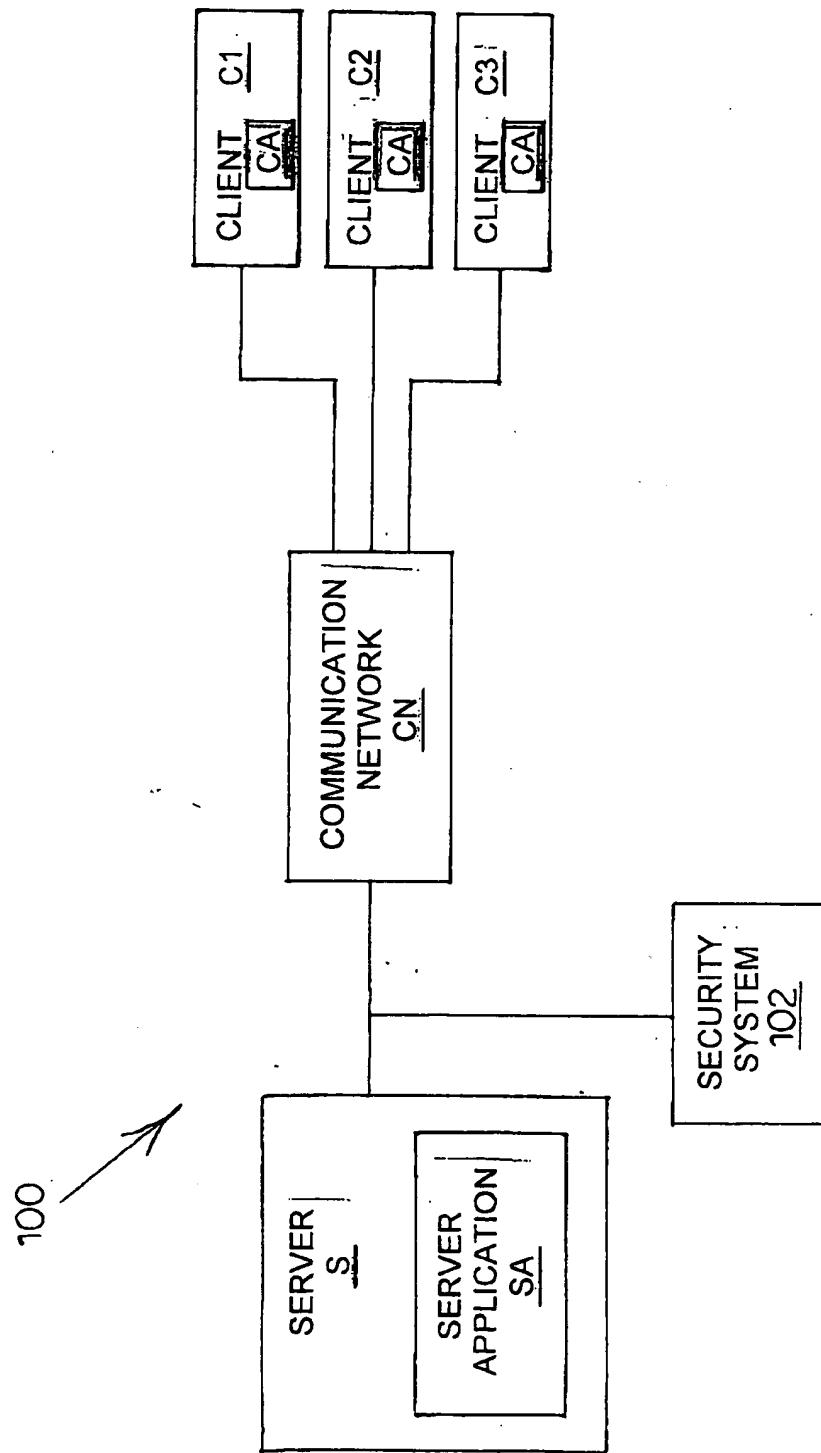


Fig .1A

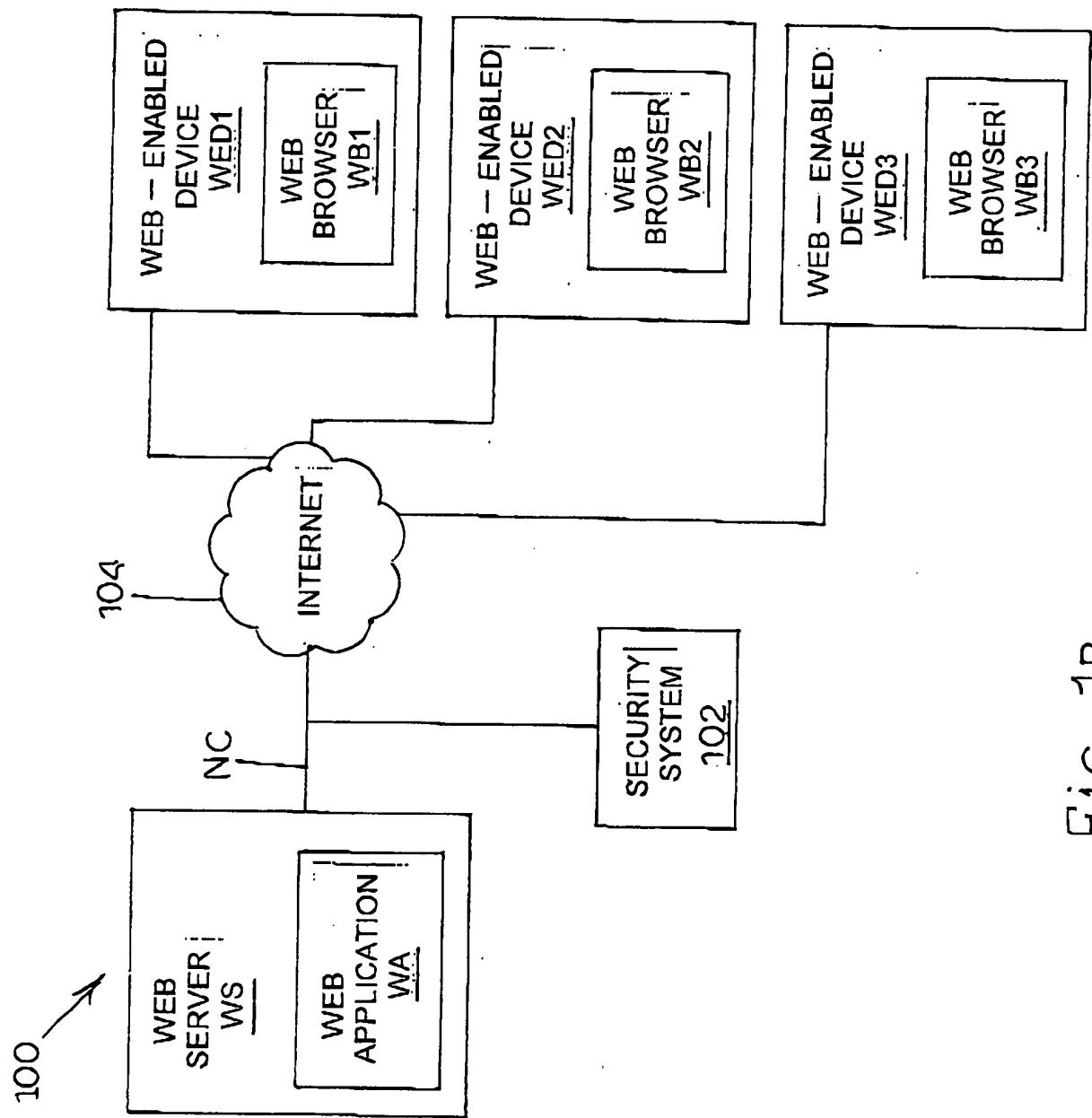


FIG. 1B

FIG. 2

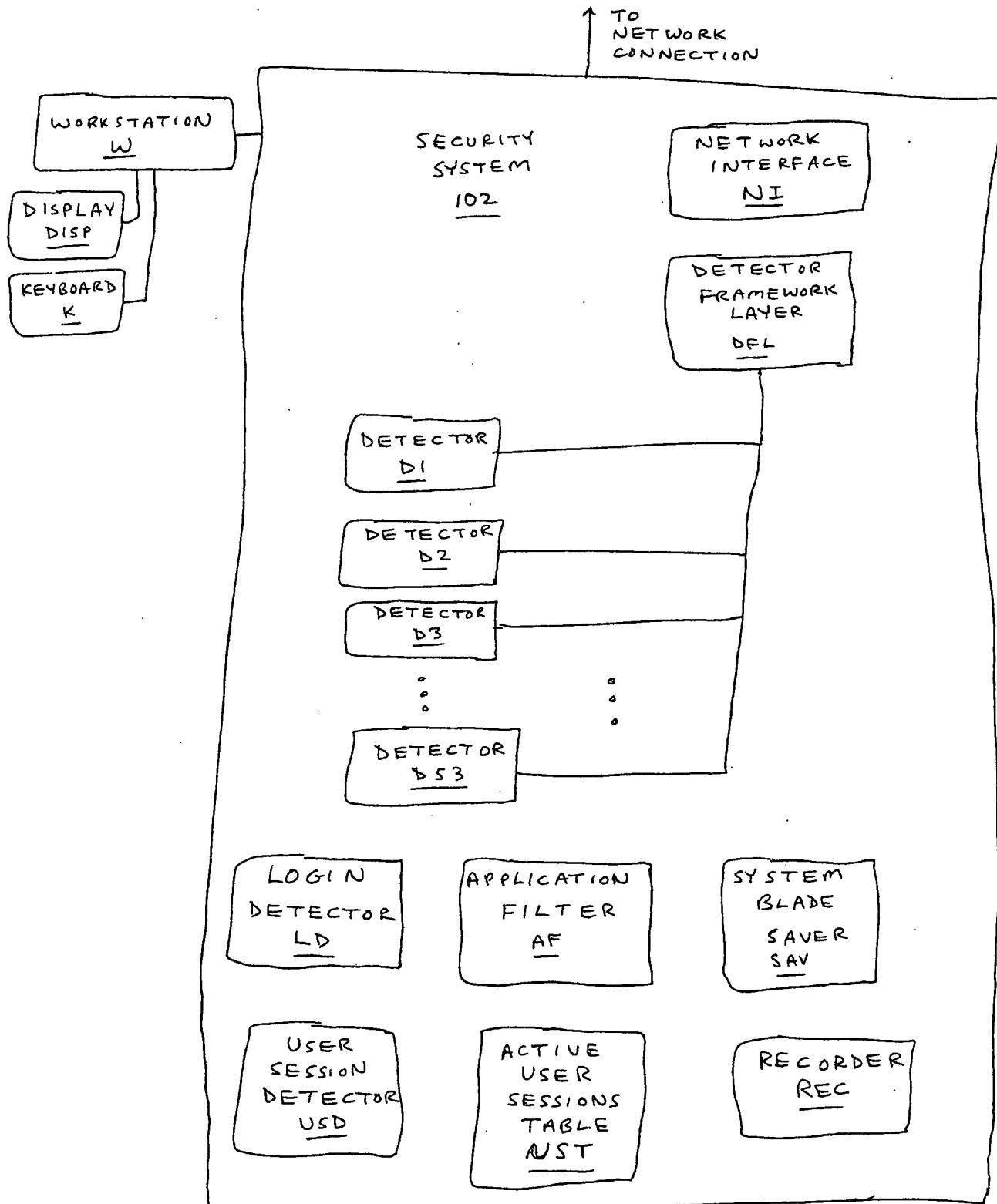
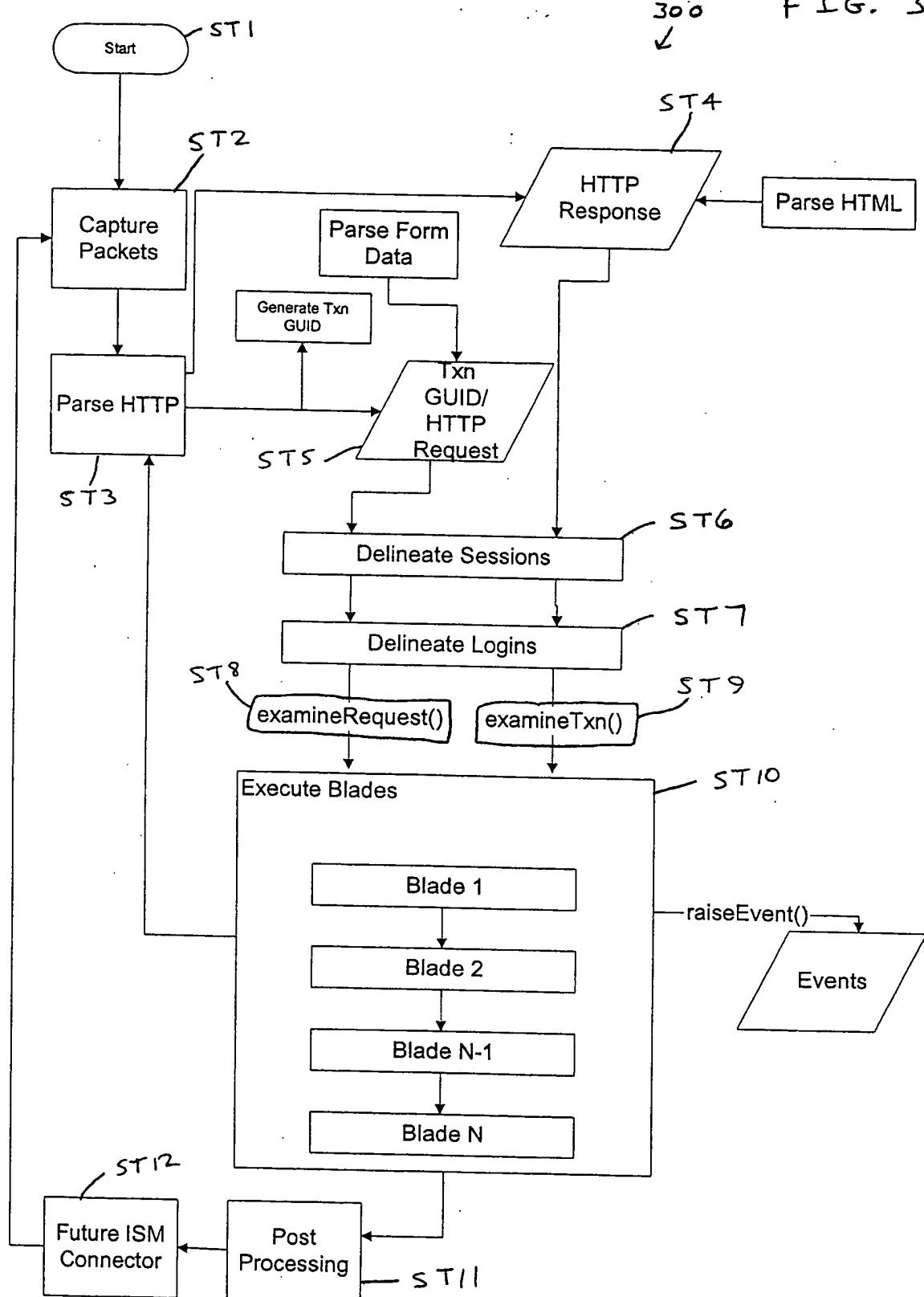


FIG. 3



Title: METHODS, SYSTEMS AND COMPUTER PROGRAM PRODUCTS FOR MONITORING USER BEHAVIOR FOR A SERVER APPLICATION
Atty Docket: 1503/4/2

FIG. 4

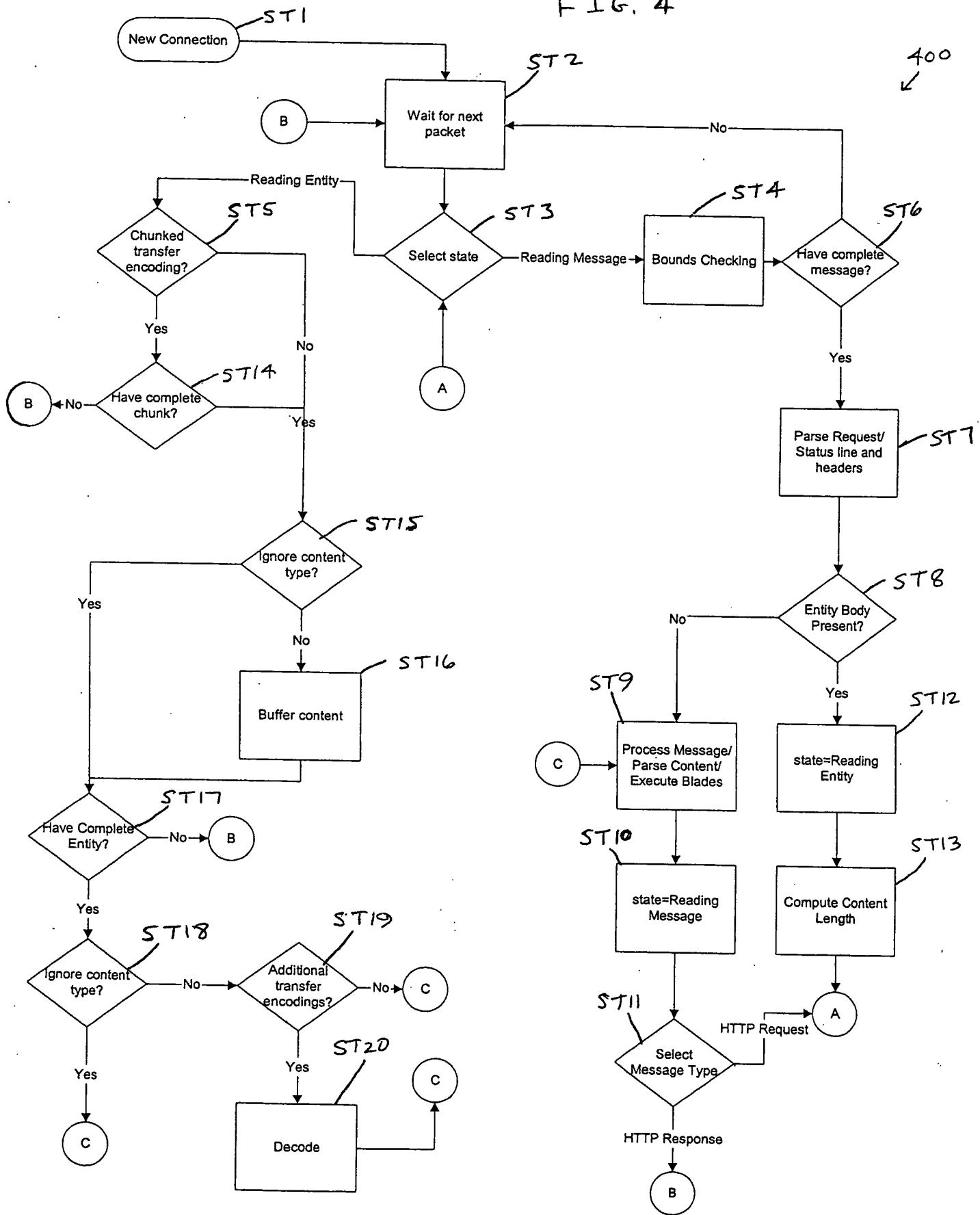
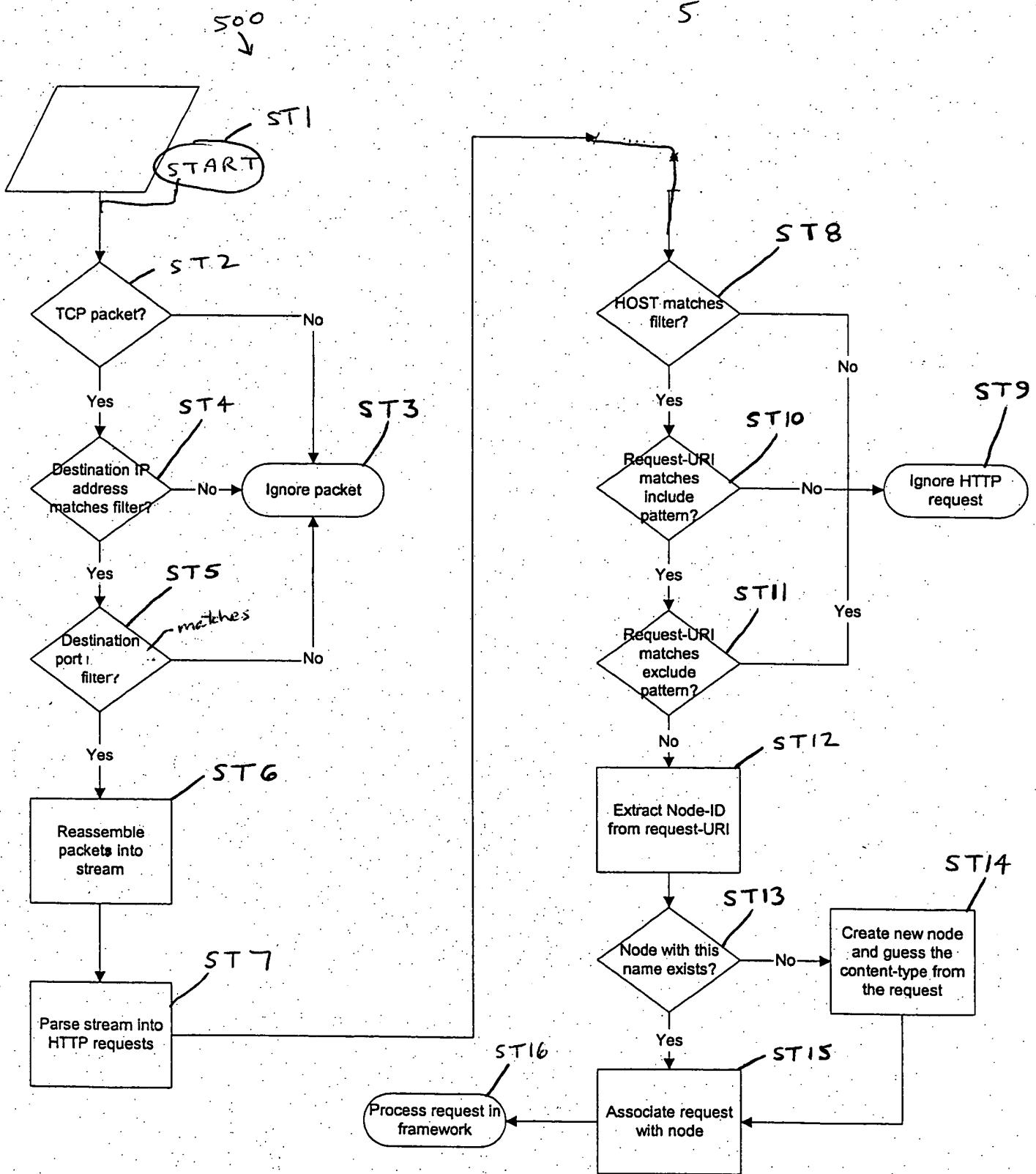
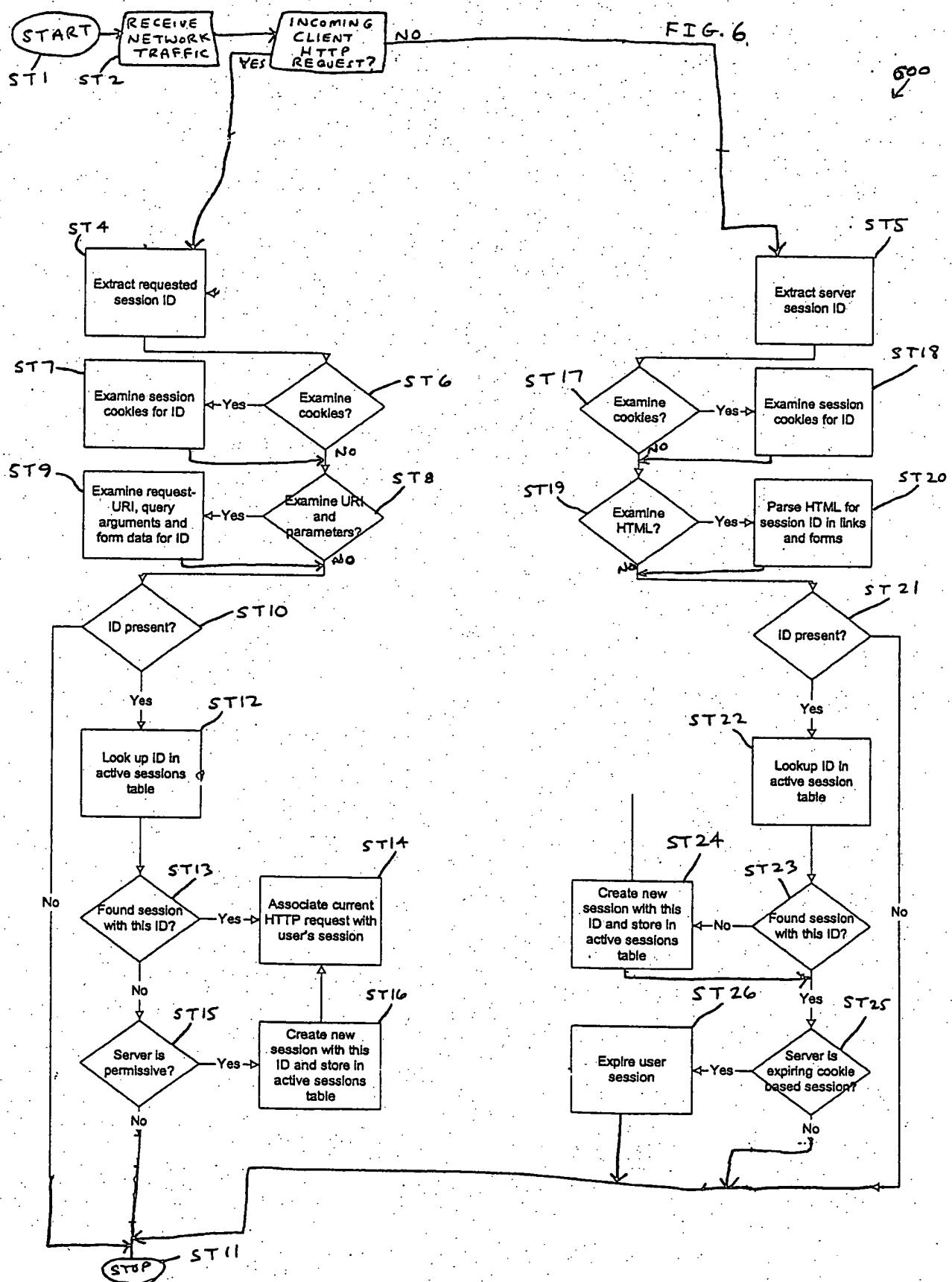


FIG.

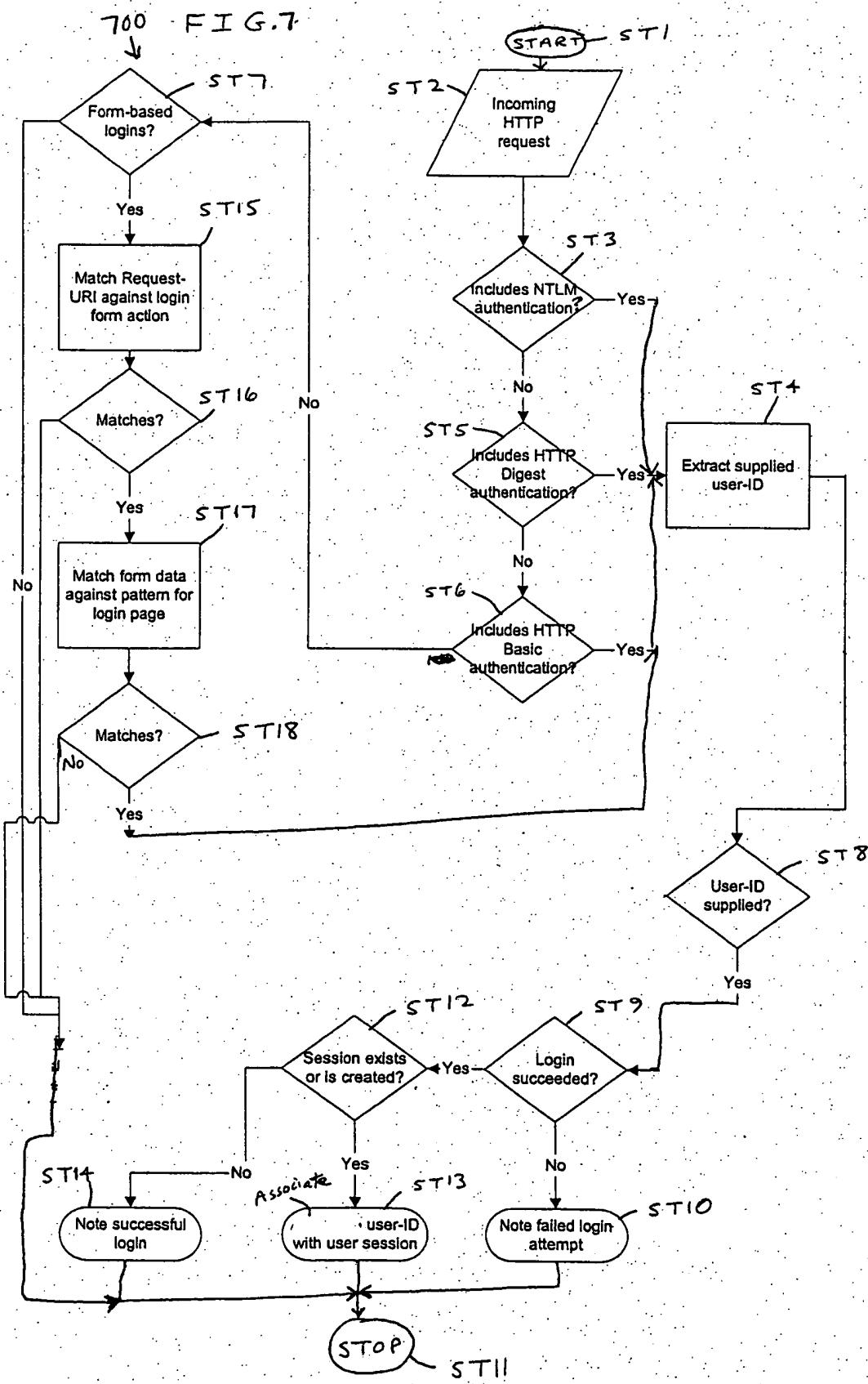
5



Title: METHODS, SYSTEMS AND COMPUTER
PROGRAM PRODUCTS FOR
MONITORING USER BEHAVIOR FOR
A SERVER APPLICATION
Atty Docket: 1503/4/2



Title: METHODS, SYSTEMS AND COMPUTER
 PROGRAM PRODUCTS FOR
 MONITORING USER BEHAVIOR FOR
 A SERVER APPLICATION
 Atty Docket: 15034/2



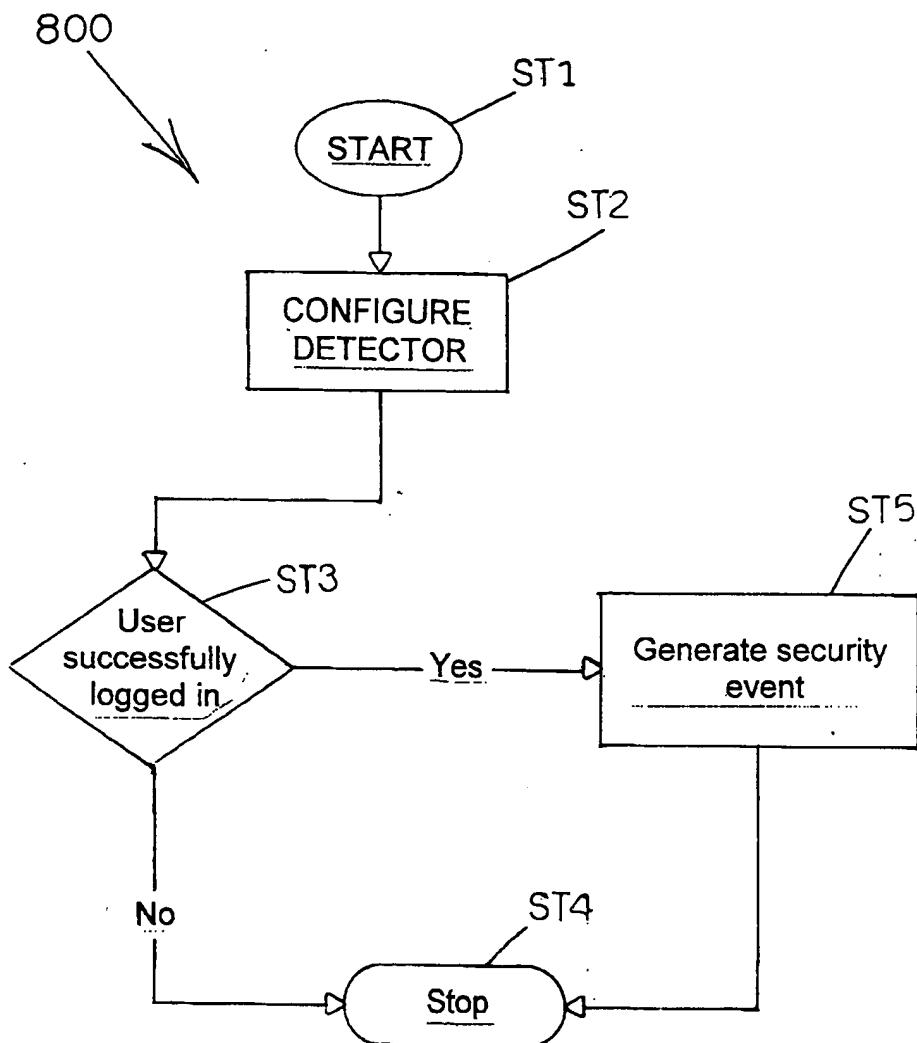


Fig. 8

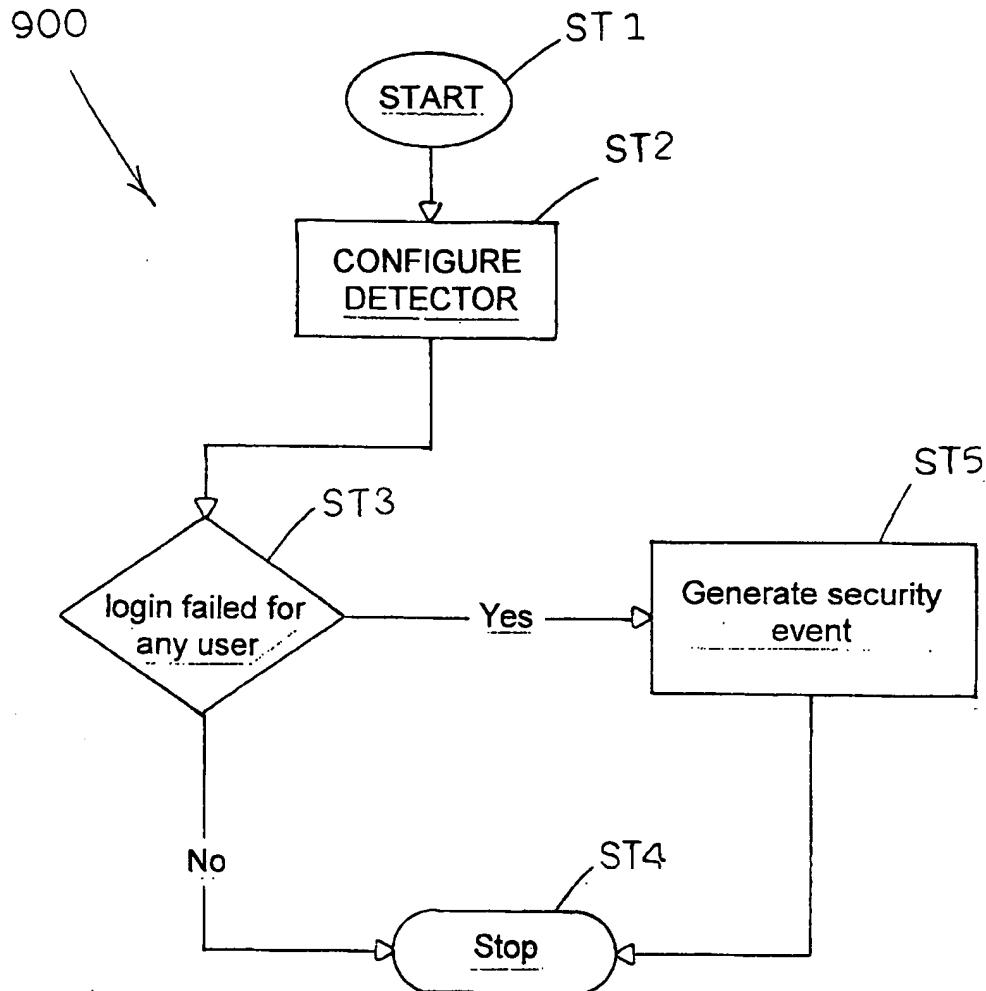


Fig. 9

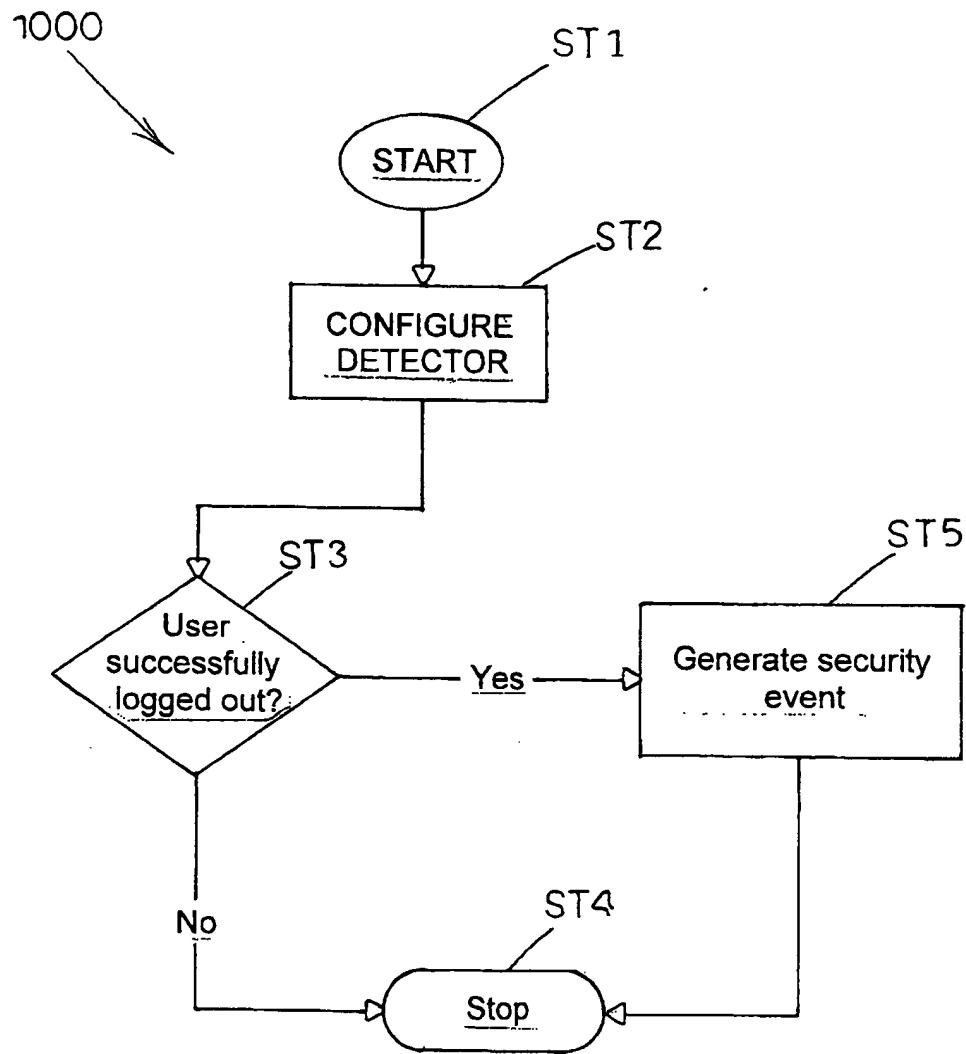


Fig. 10

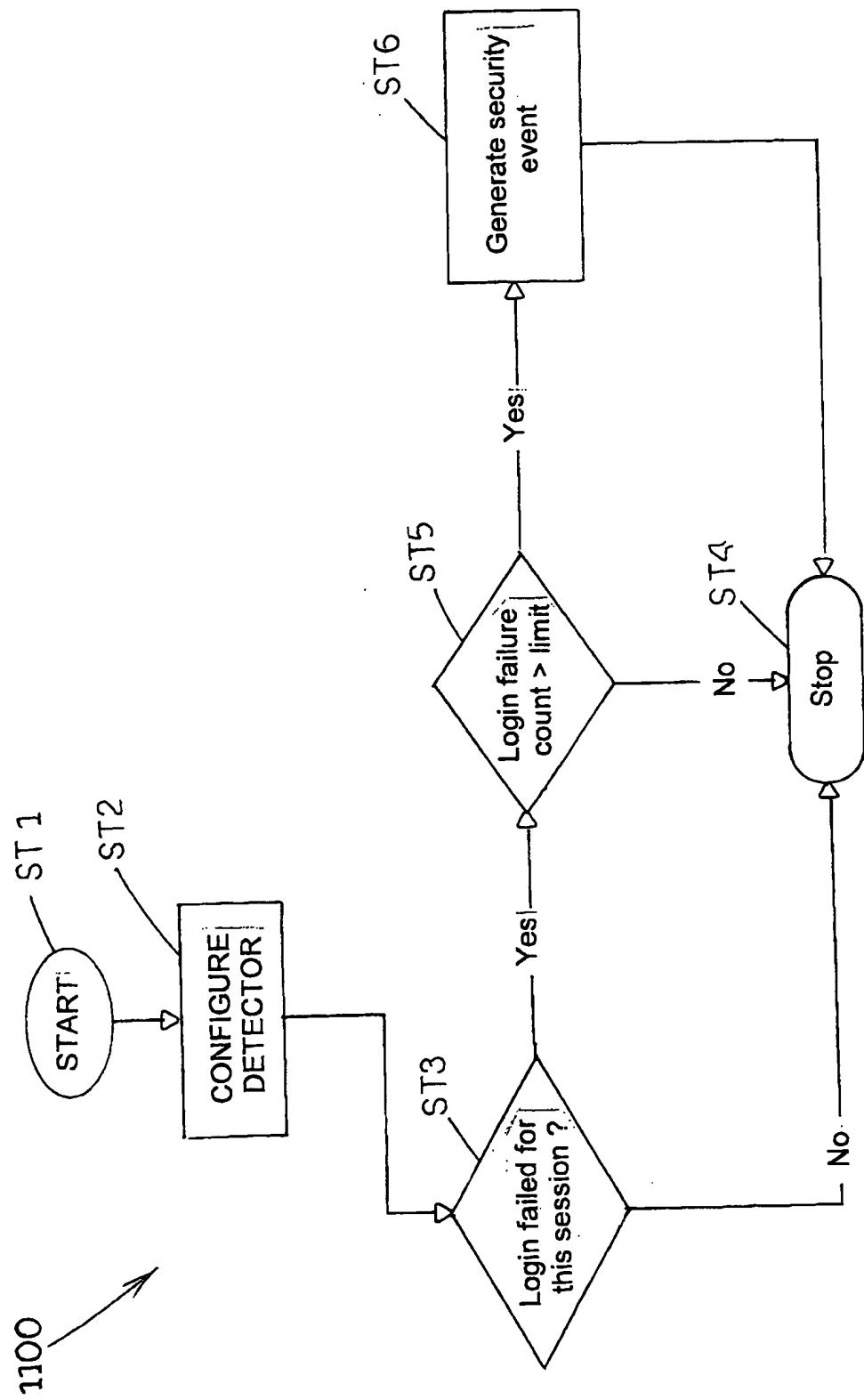


Fig. 11

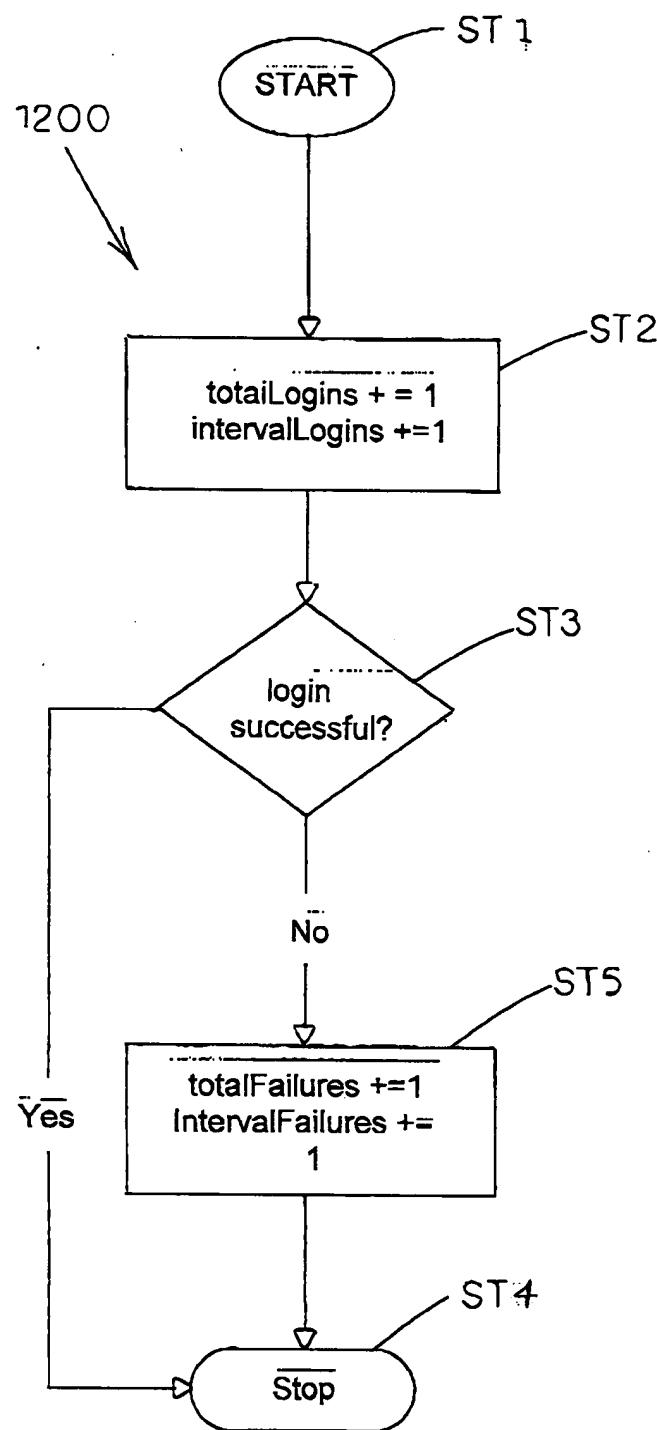


Fig. 12A

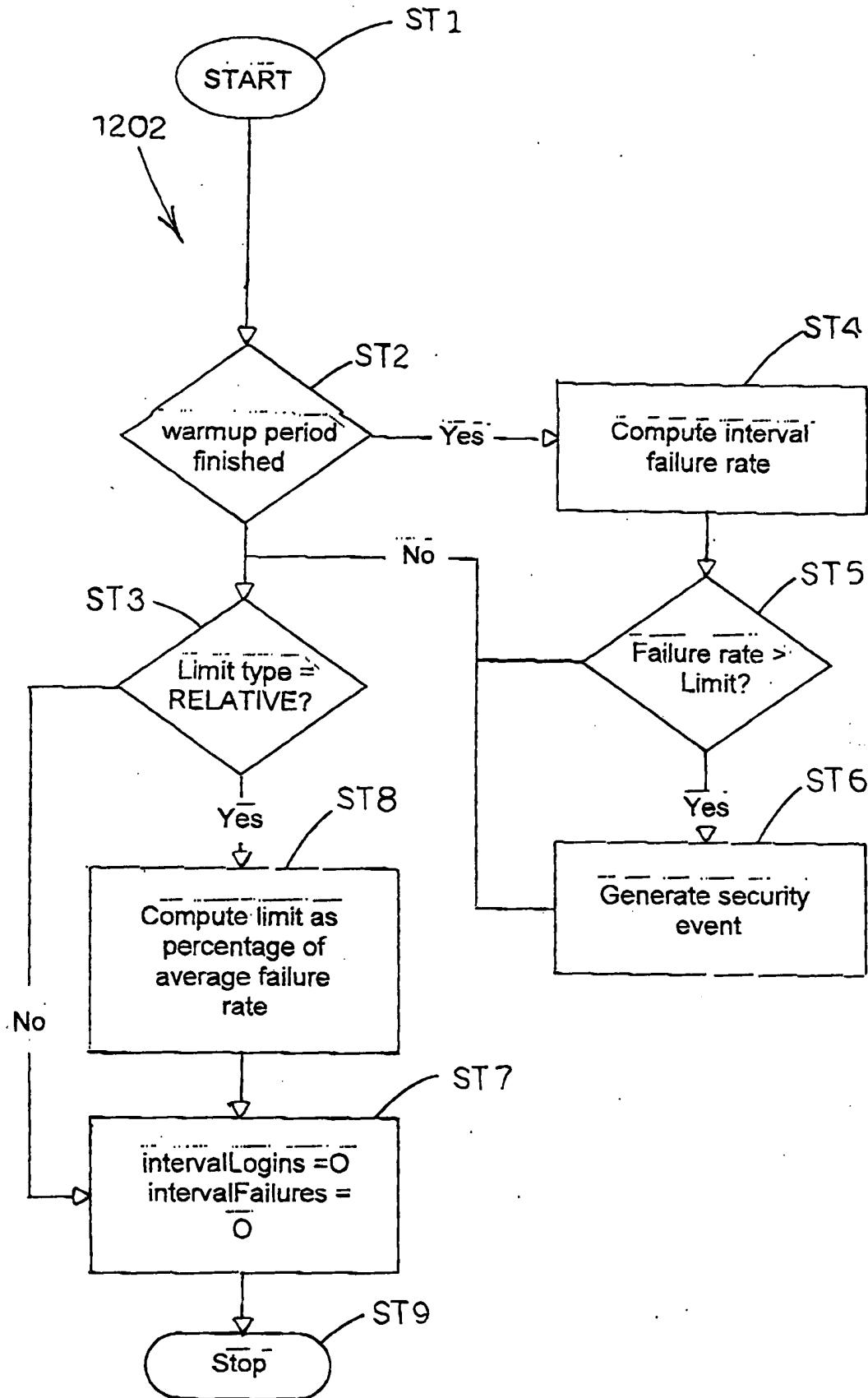


Fig. 12B

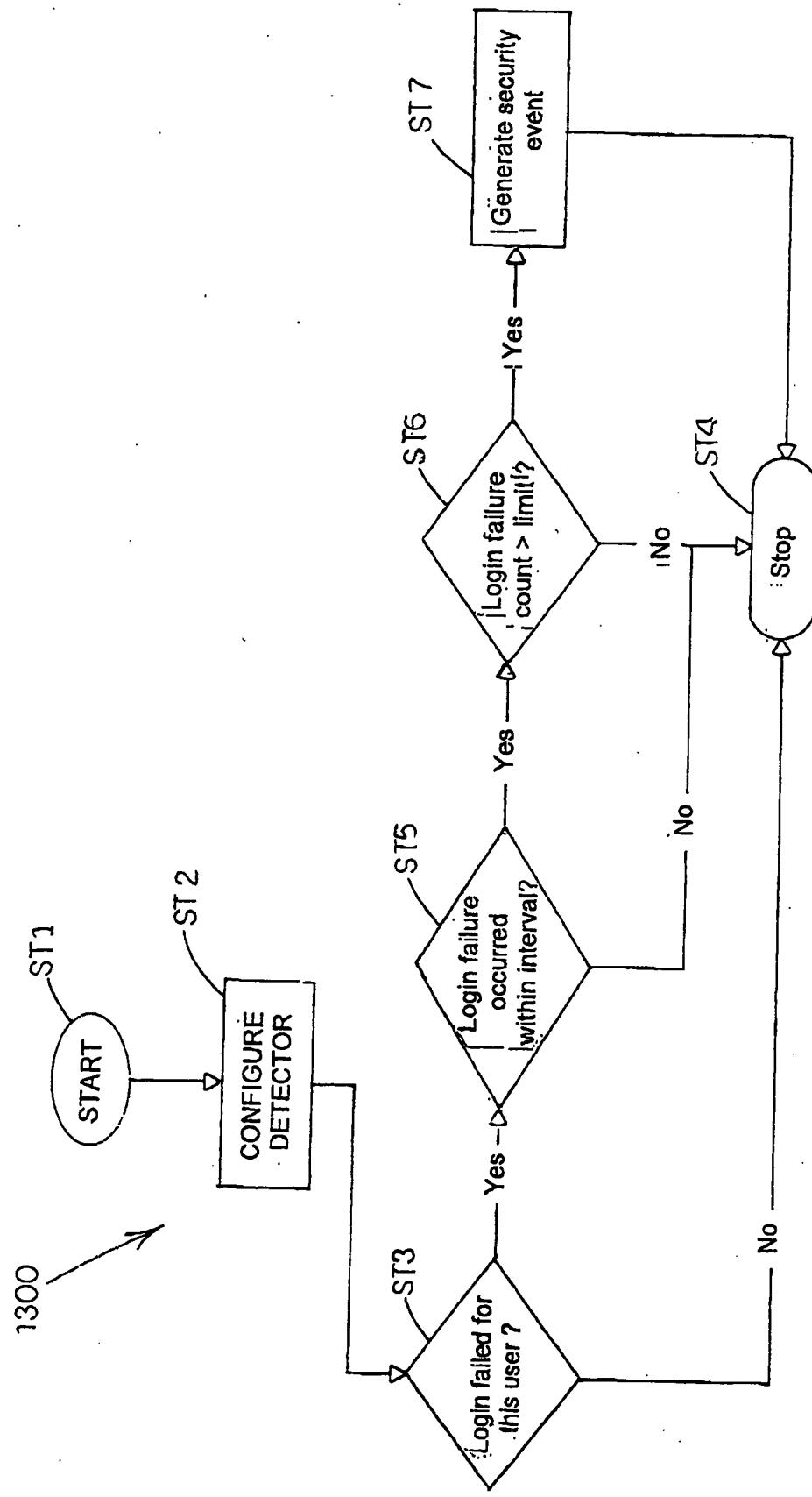


Fig . 13

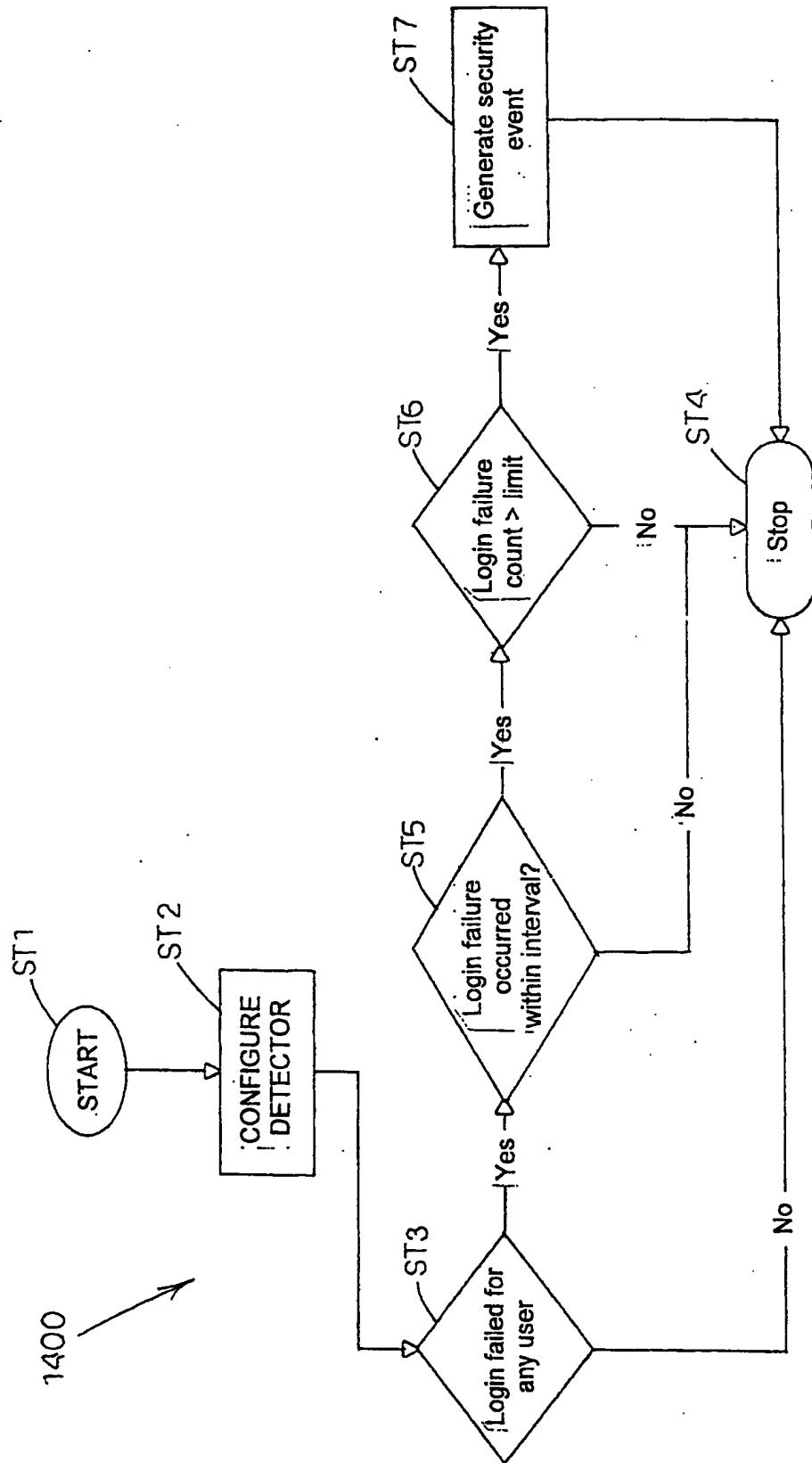


Fig . 14

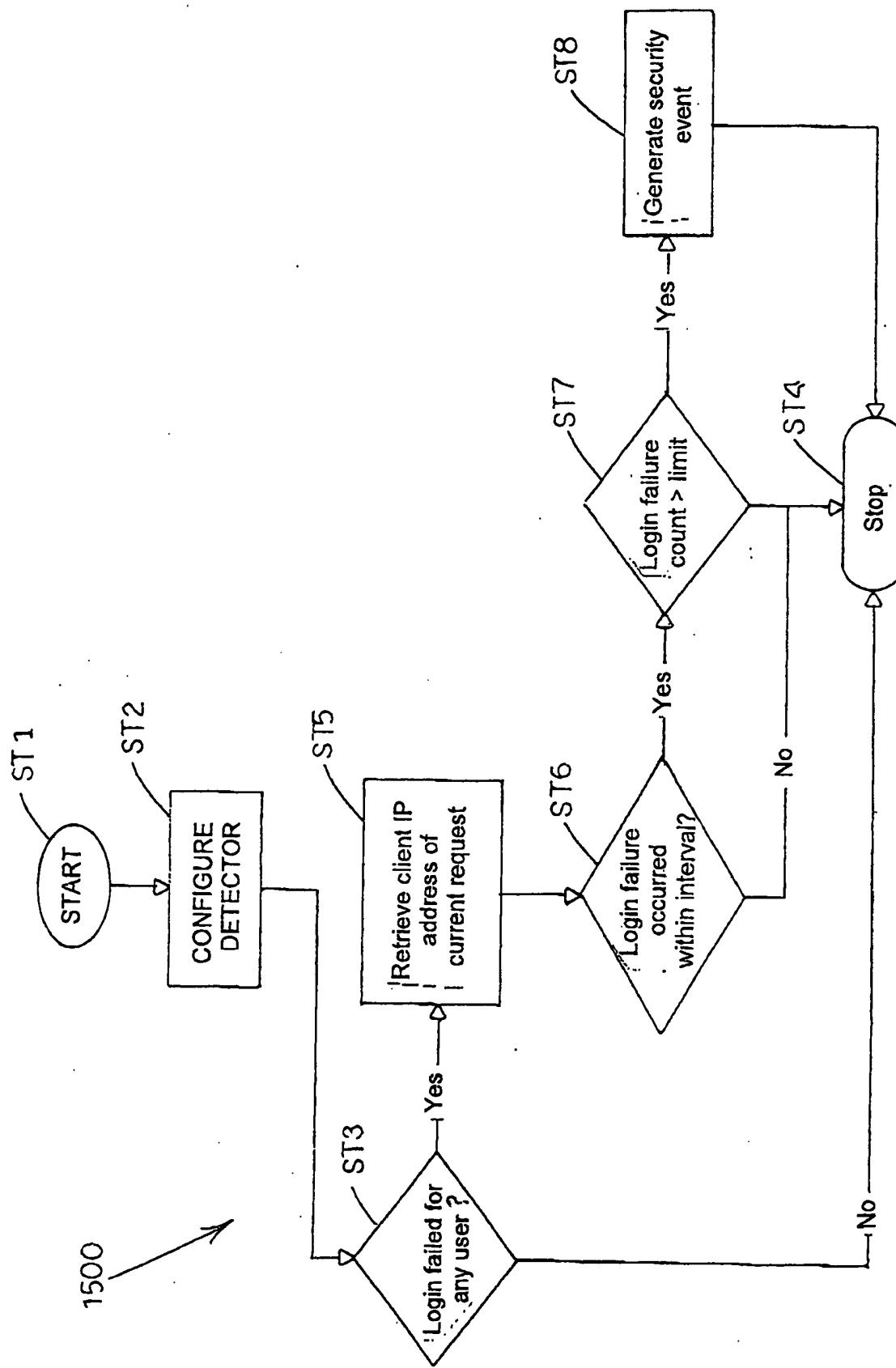


FIG . 15A

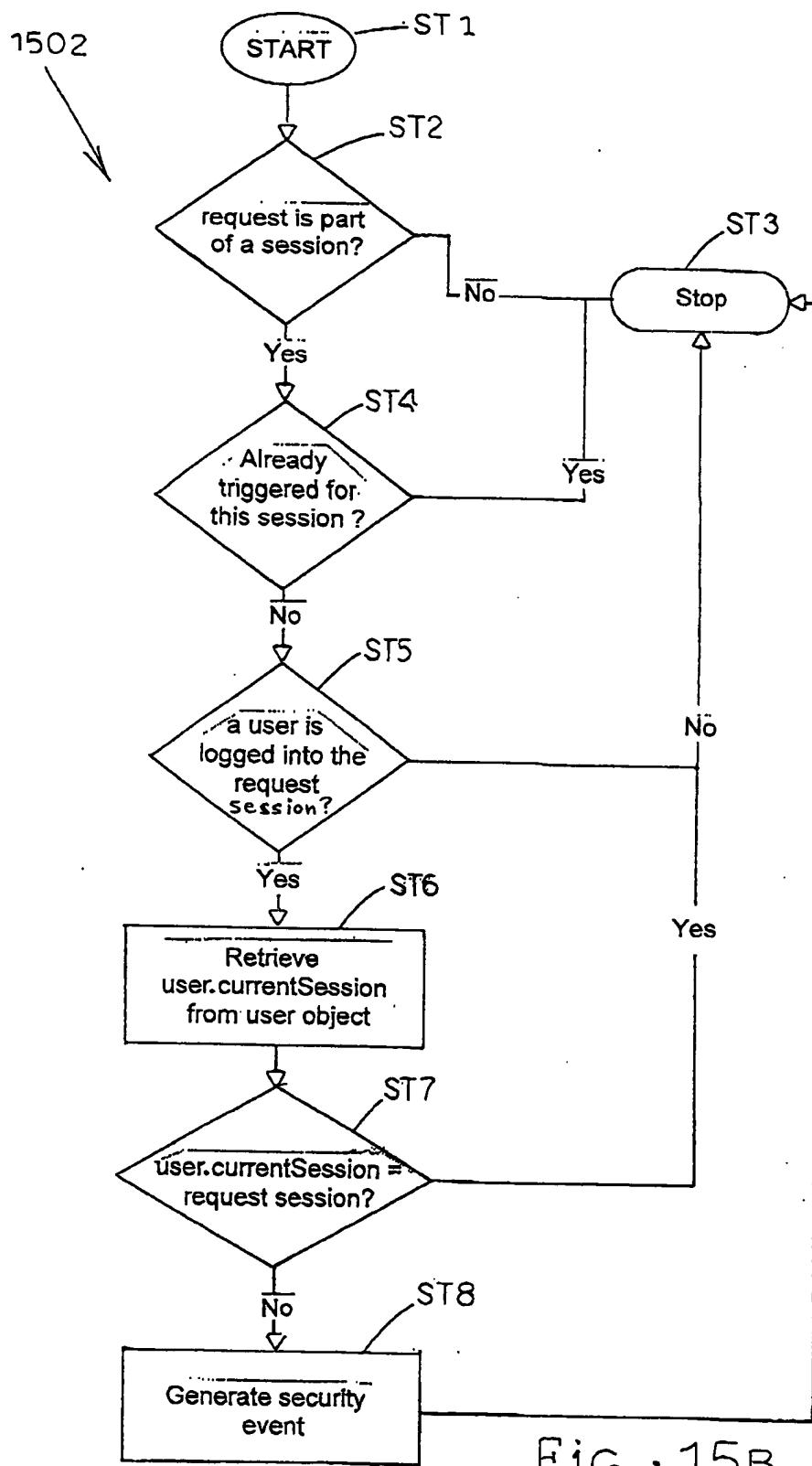


Fig. 15B

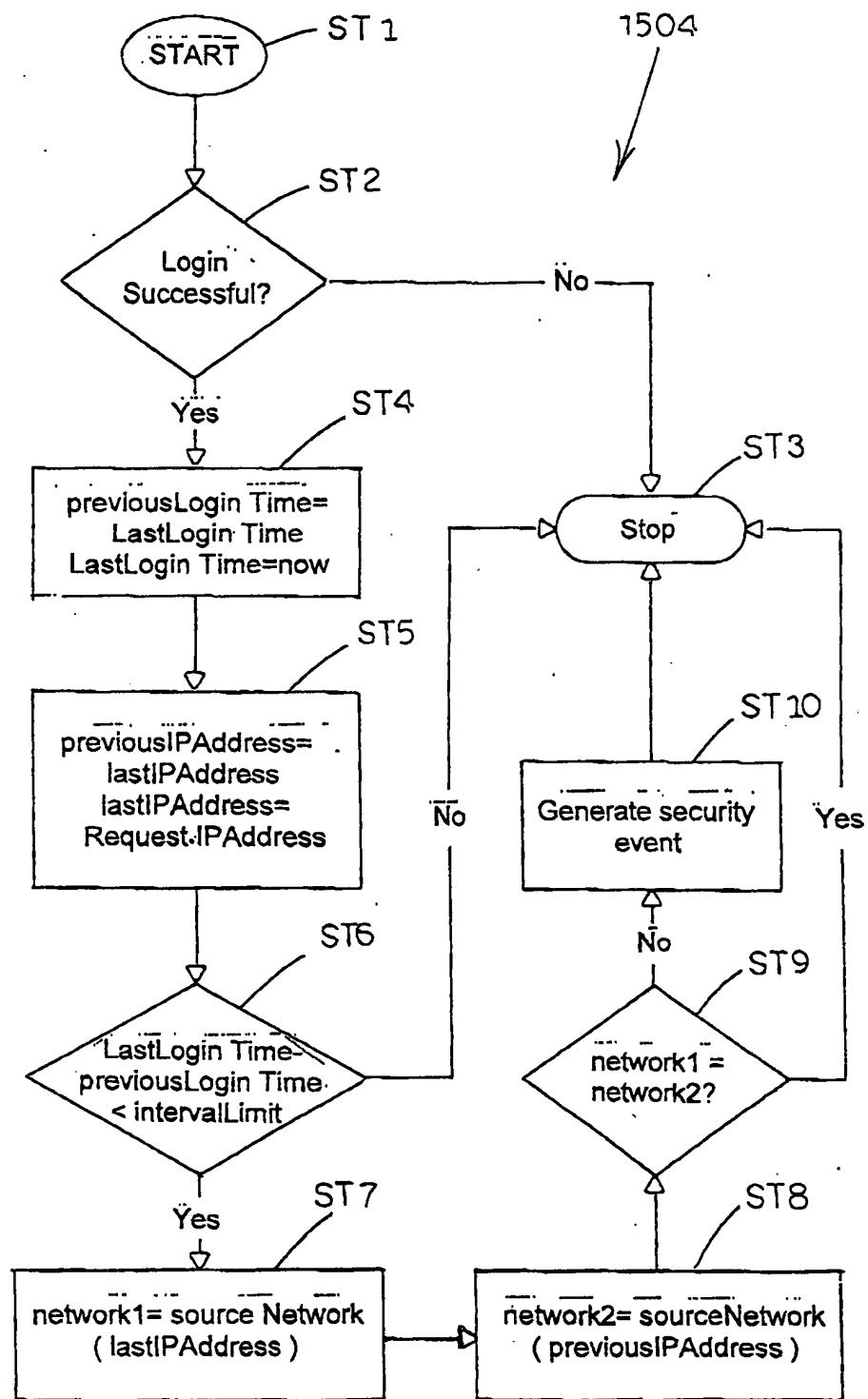
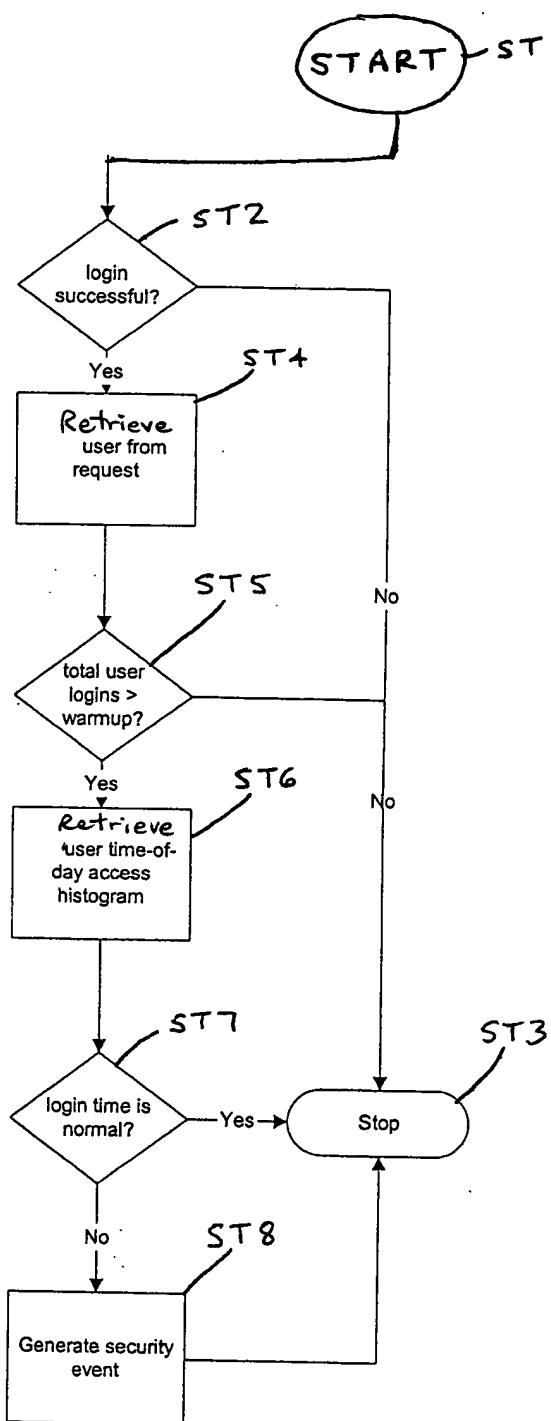


Fig. 15c

1600

FIG. 16A



1602

FIG. 16B

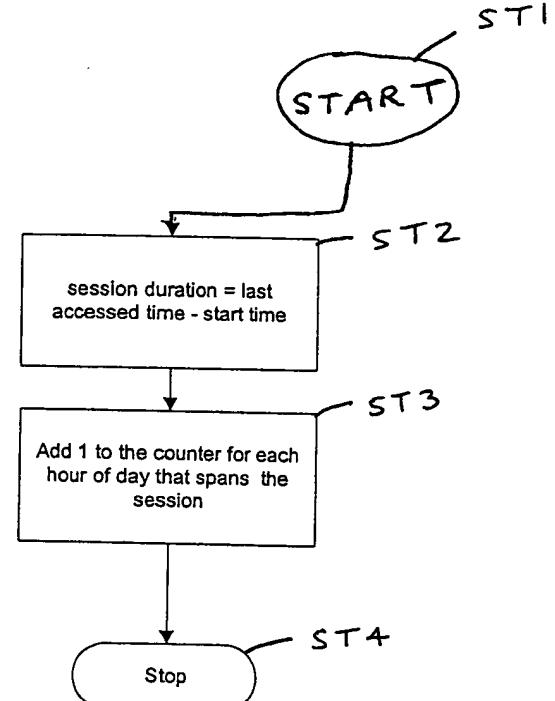


FIG. 17A

1700
 ↓

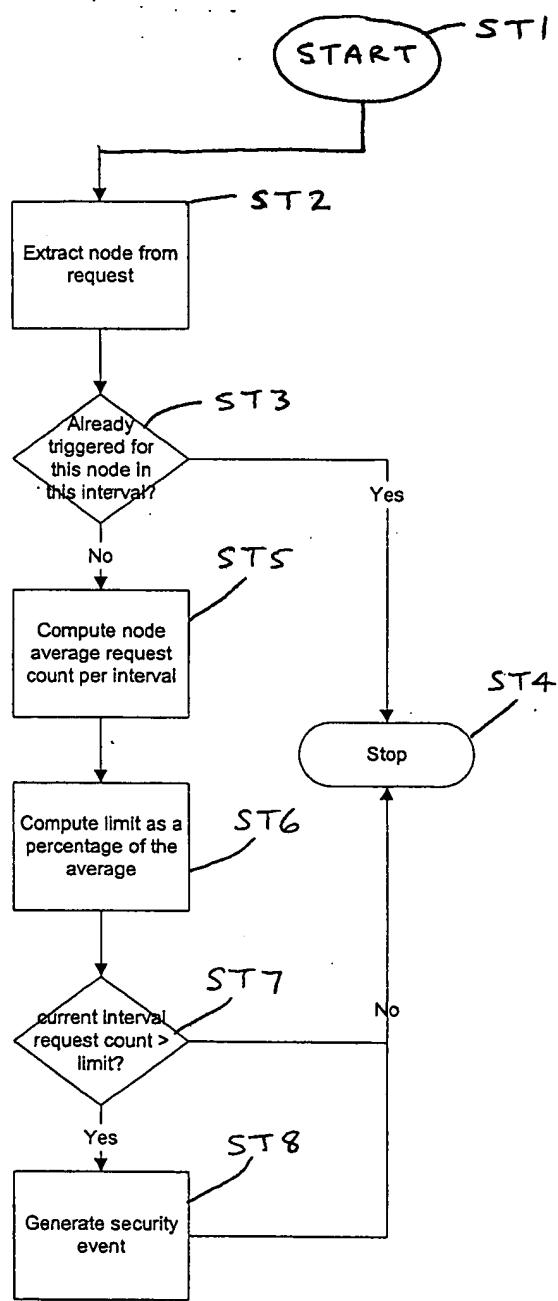


FIG. 17B

1702

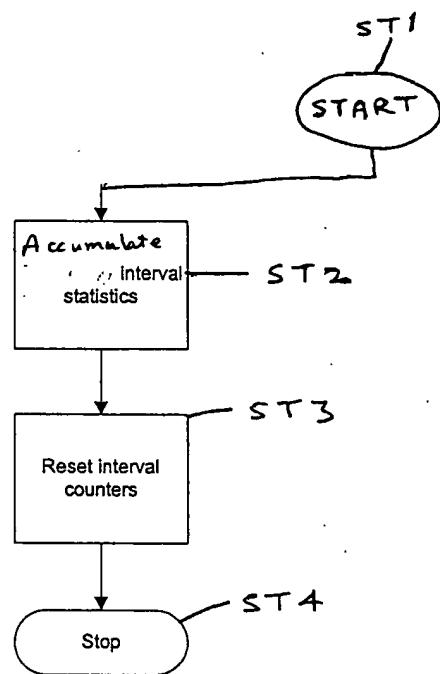


FIG. 18

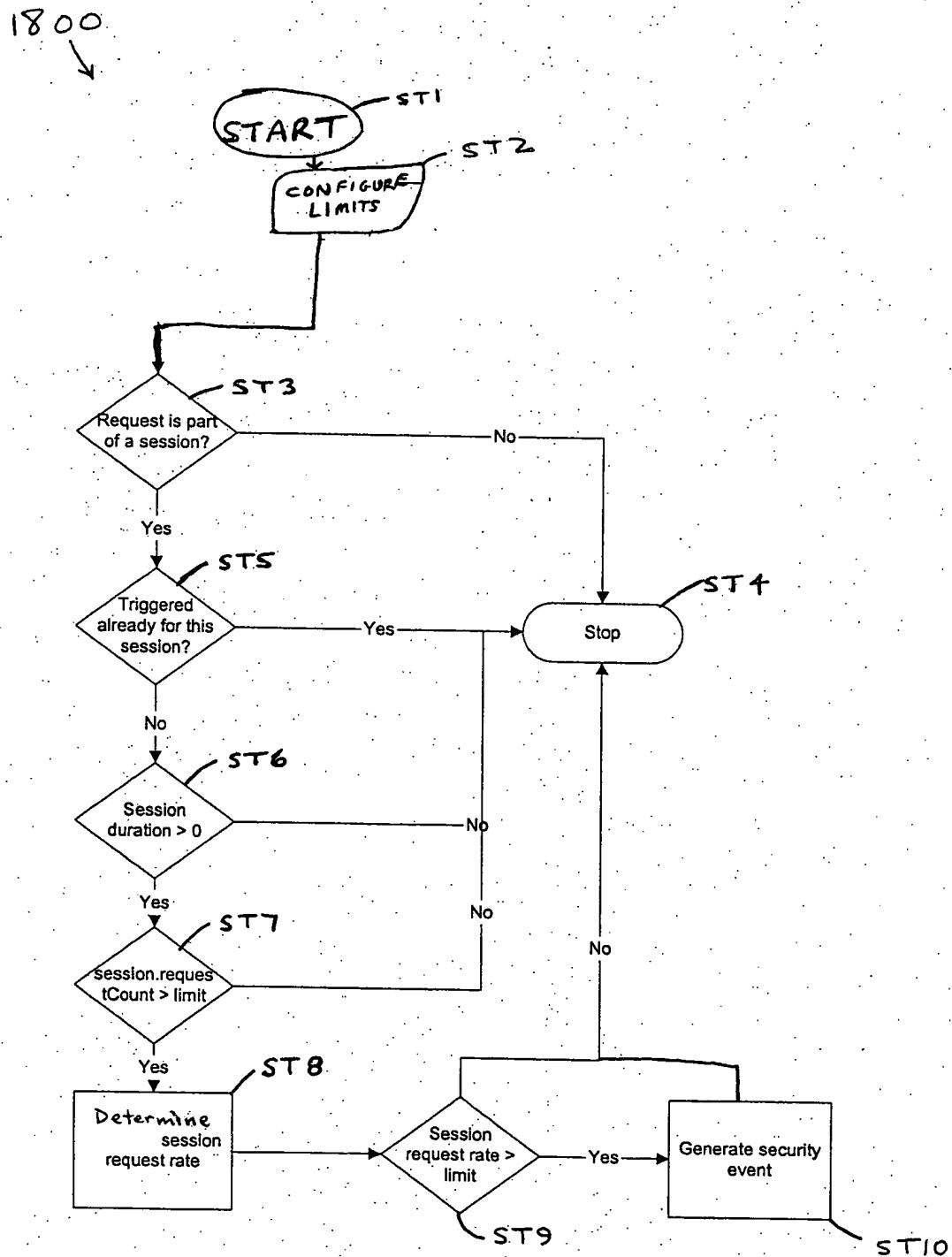


FIG. 19A

19 00
↓

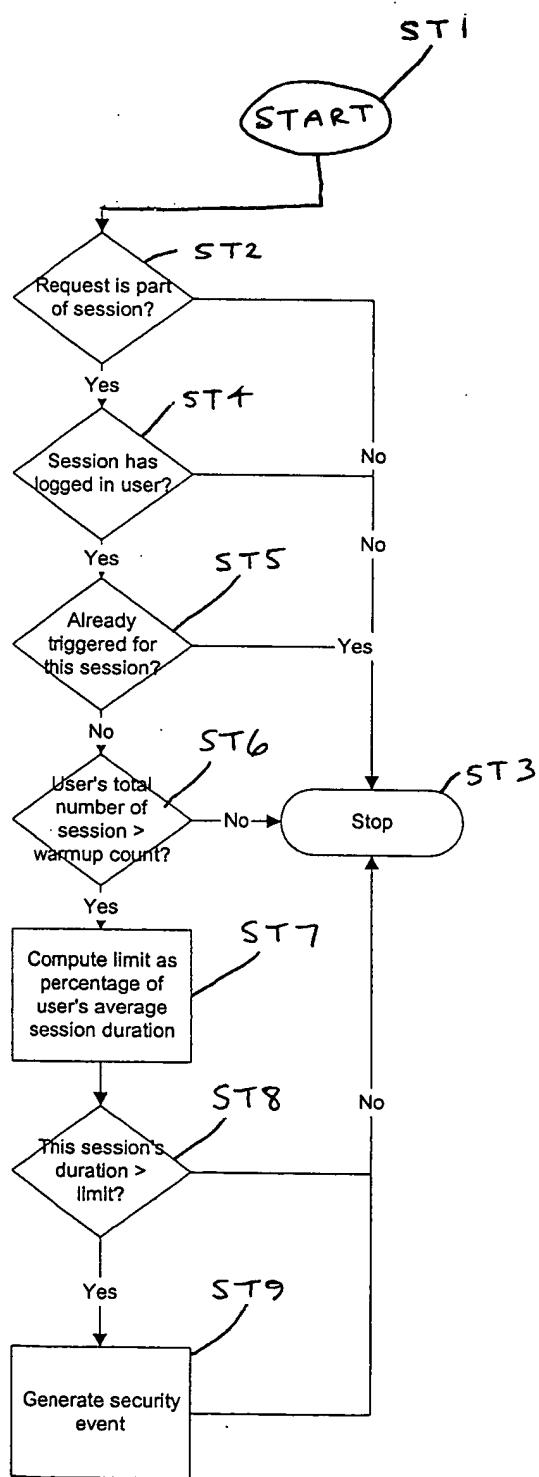


FIG. 19B

1902
↓

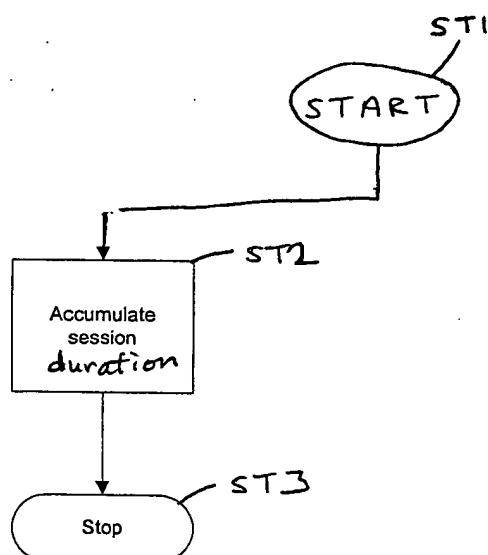


FIG. 20A

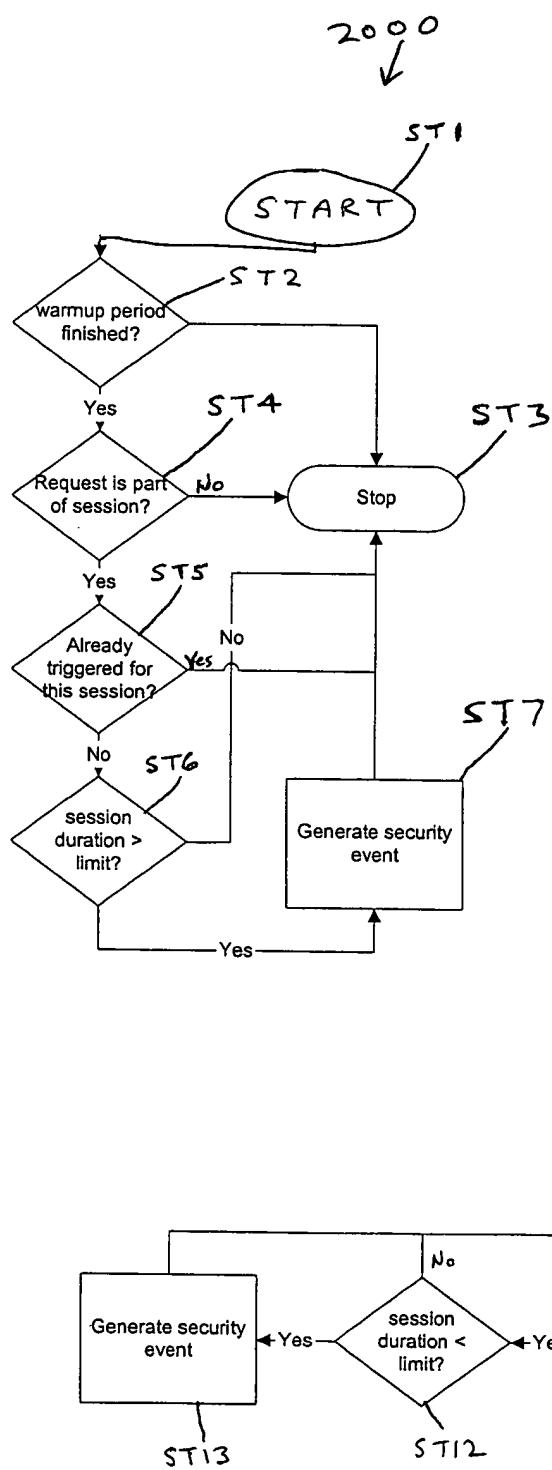
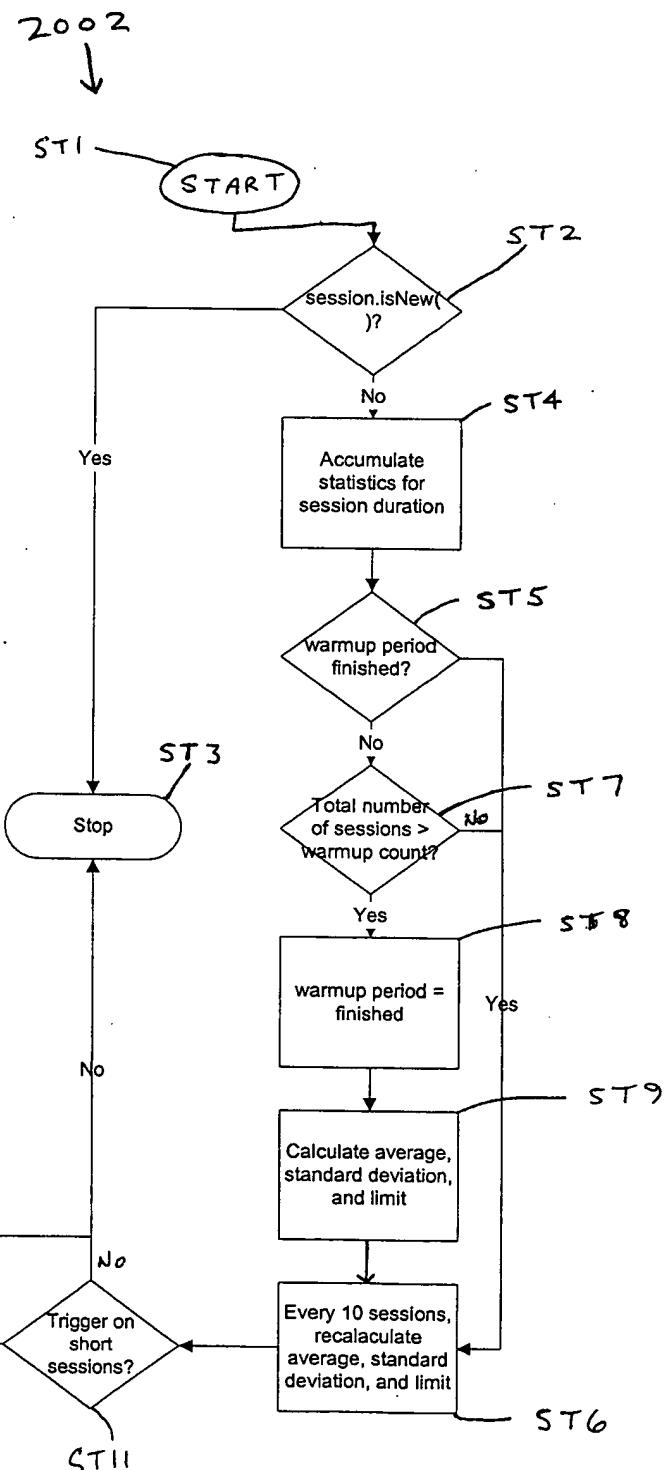


FIG. 20B



Title: METHODS, SYSTEMS AND COMPUTER
PROGRAM PRODUCTS FOR
MONITORING USER BEHAVIOR FOR
A SERVER APPLICATION
Atty Docket: 1503/4/2

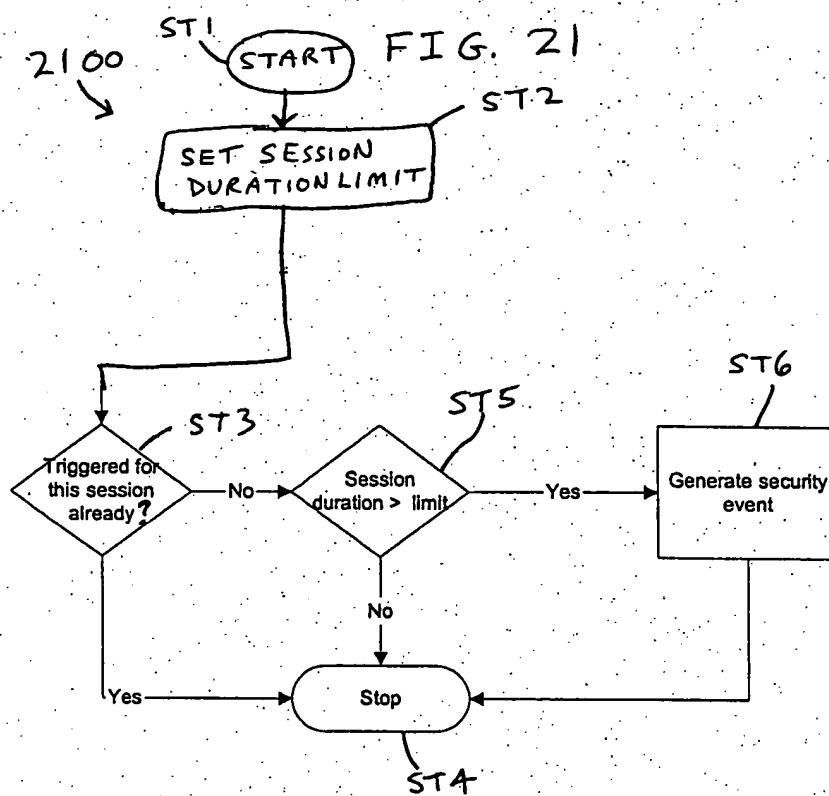


FIG. 22A

2200
 ↓

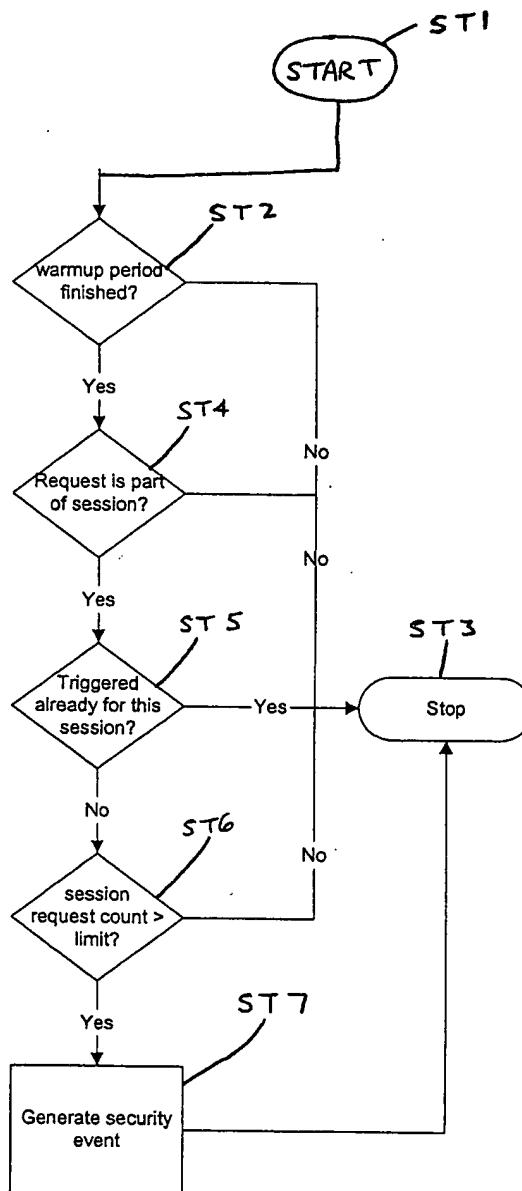


FIG. 22B

2202
 ↓

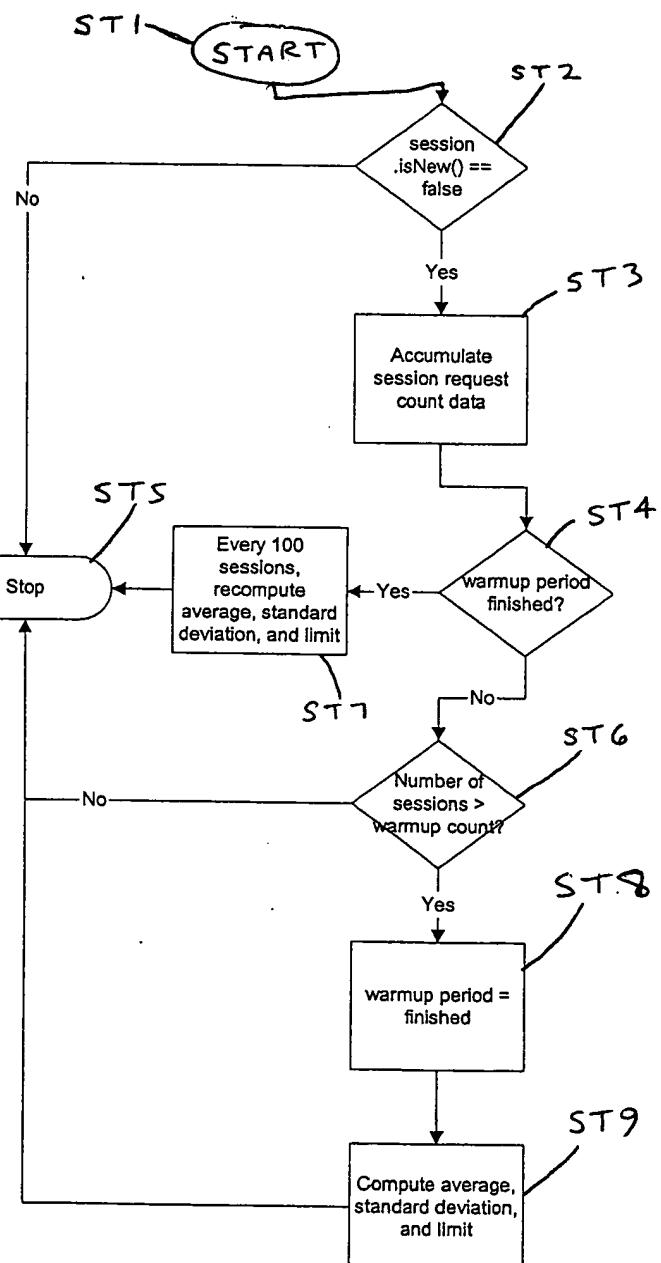


FIG. 23A

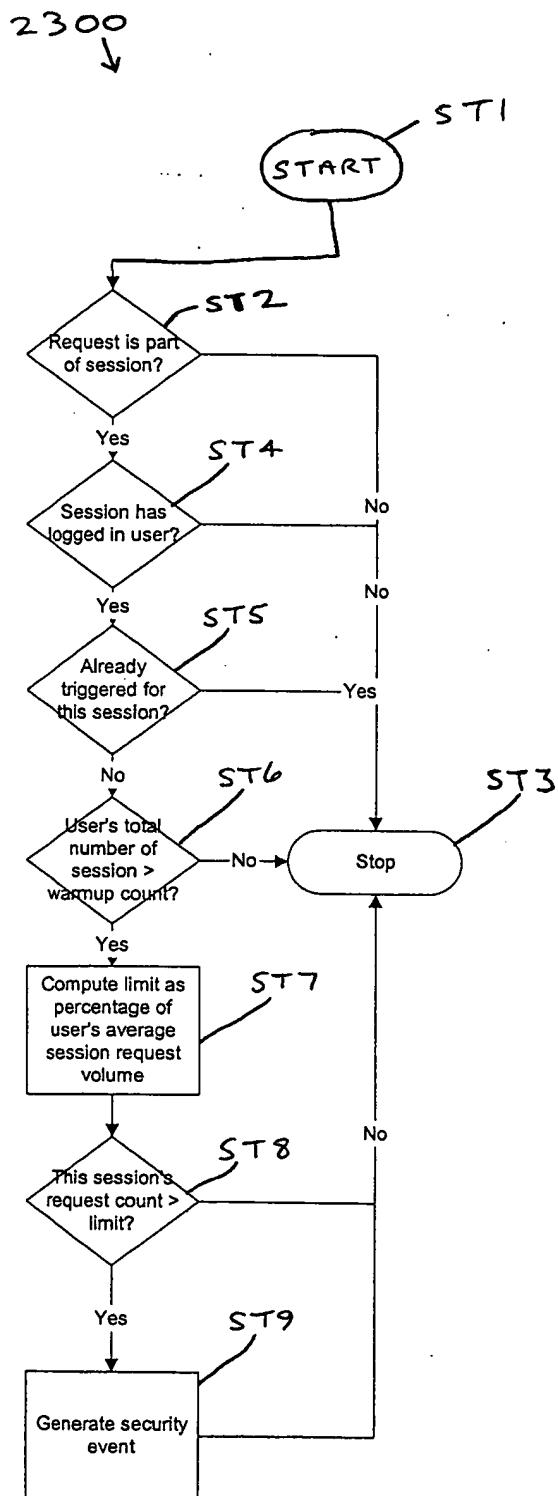
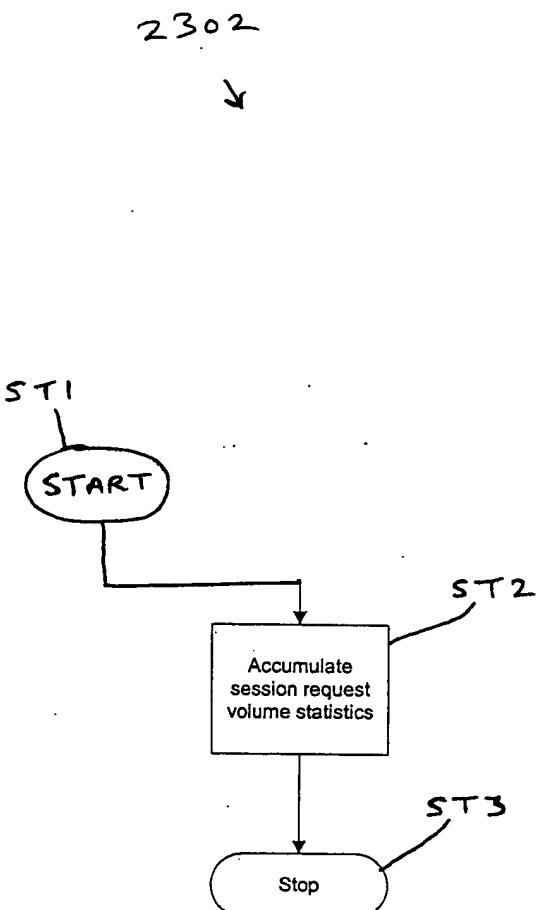


FIG. 23B



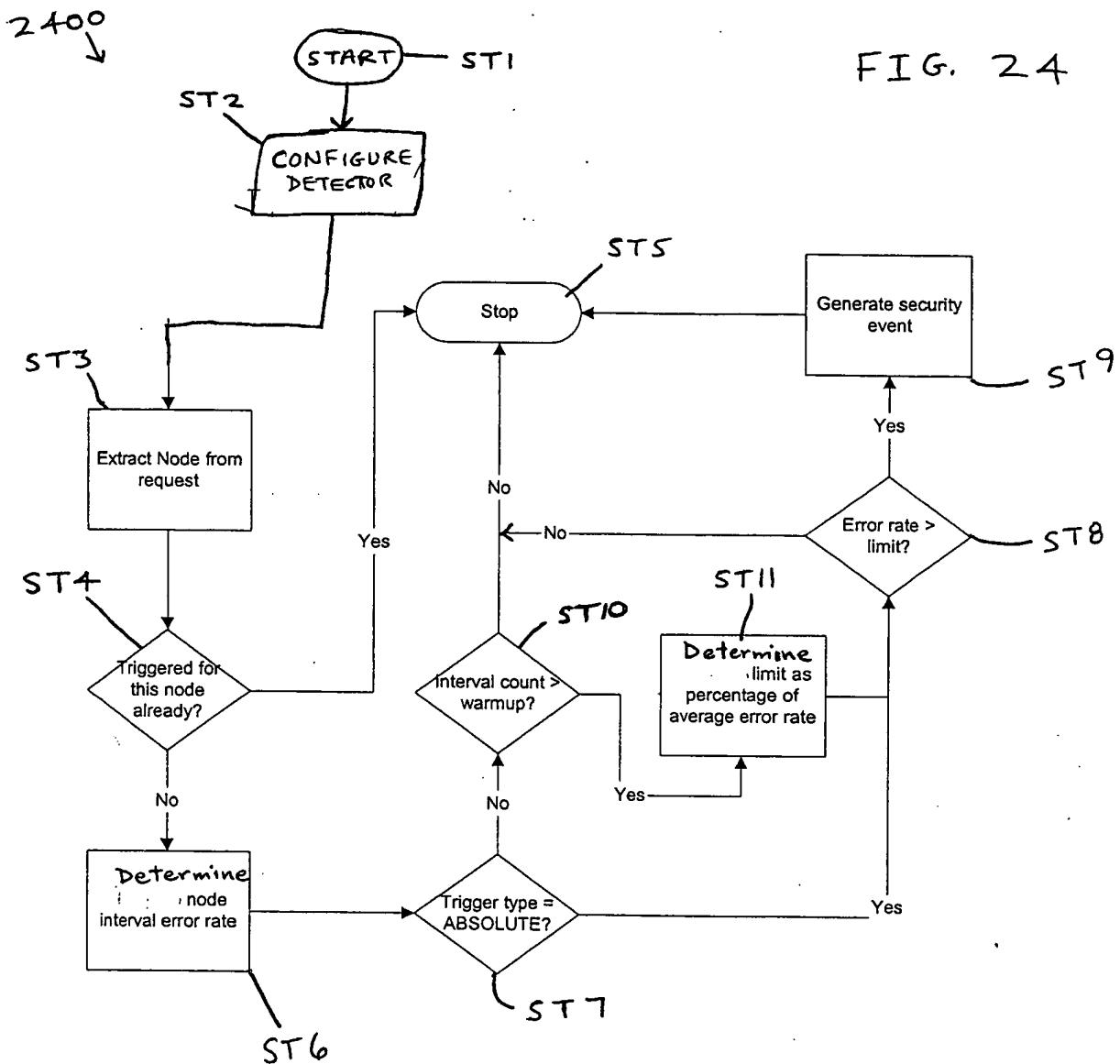
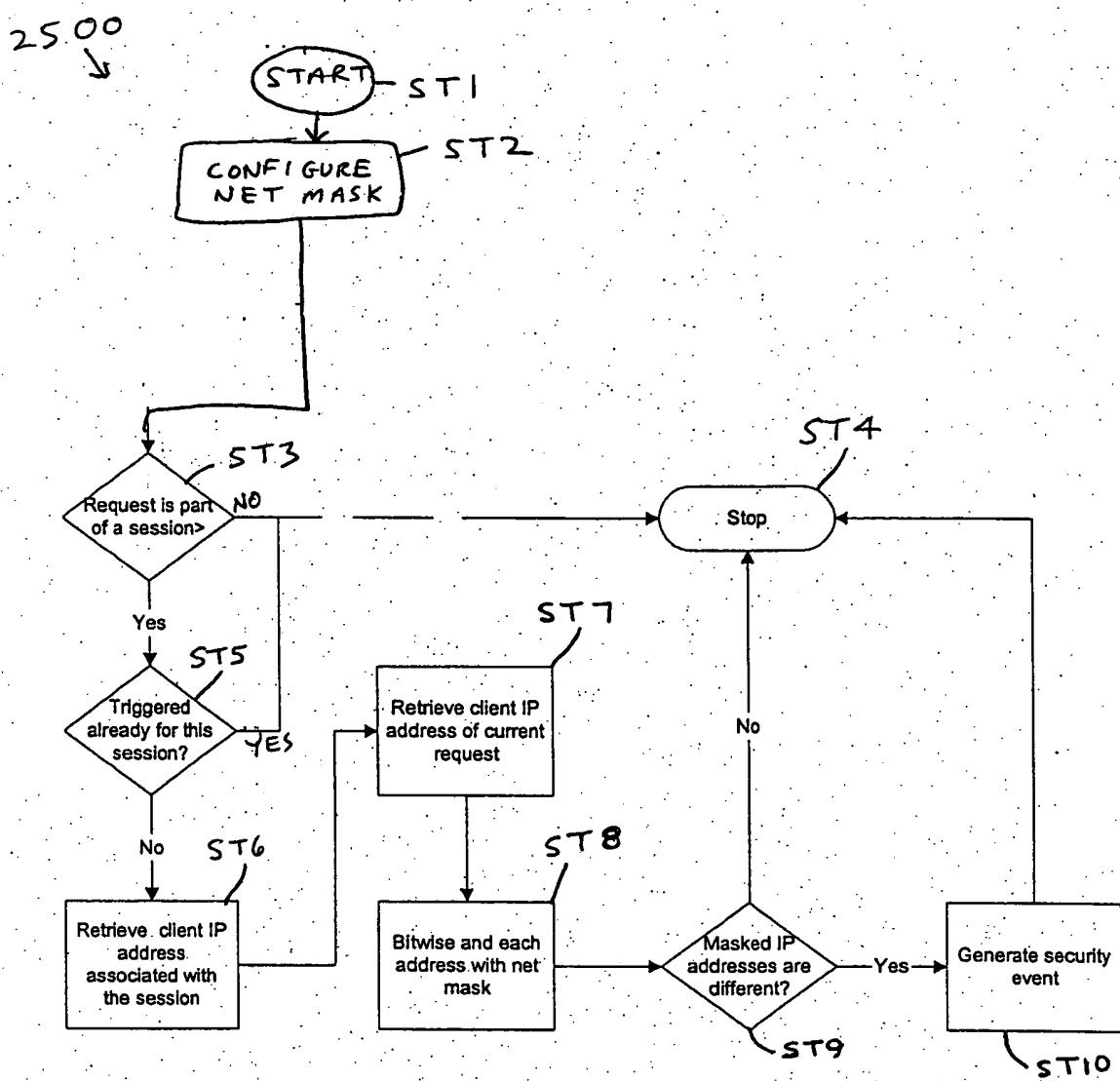
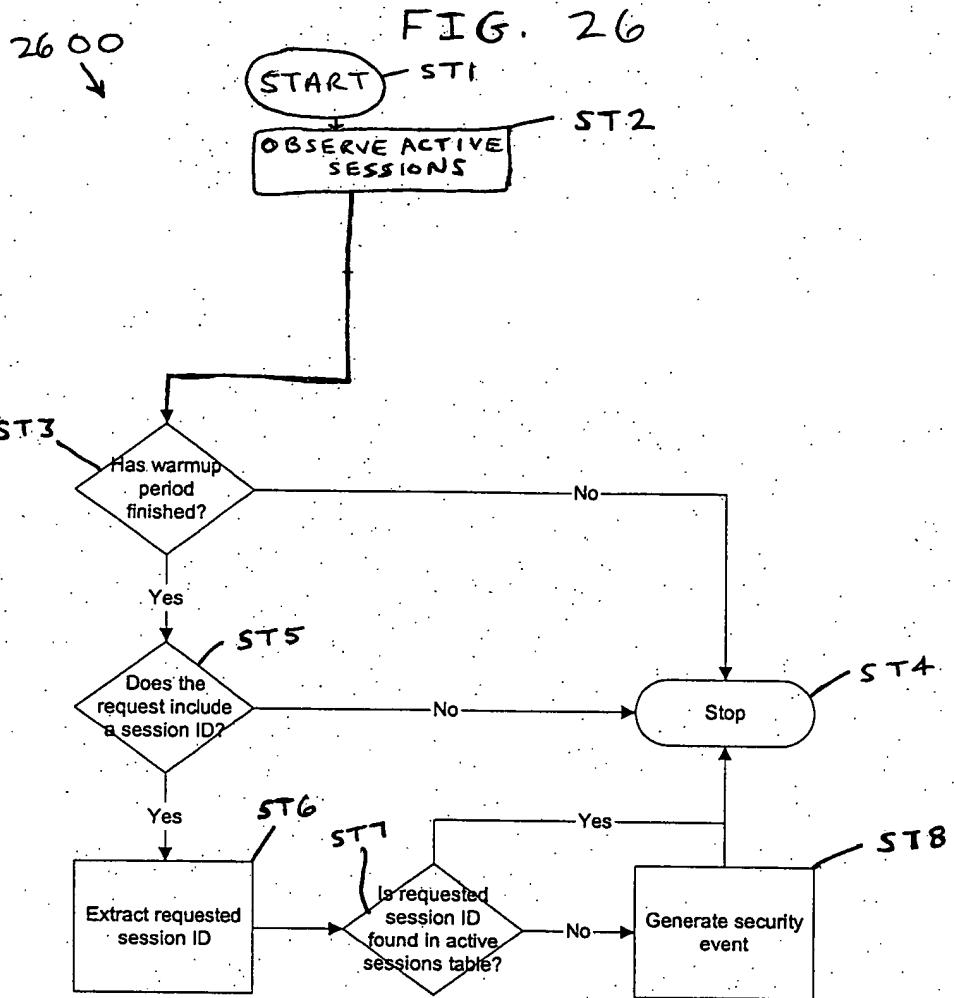


FIG. 24

FIG. 25

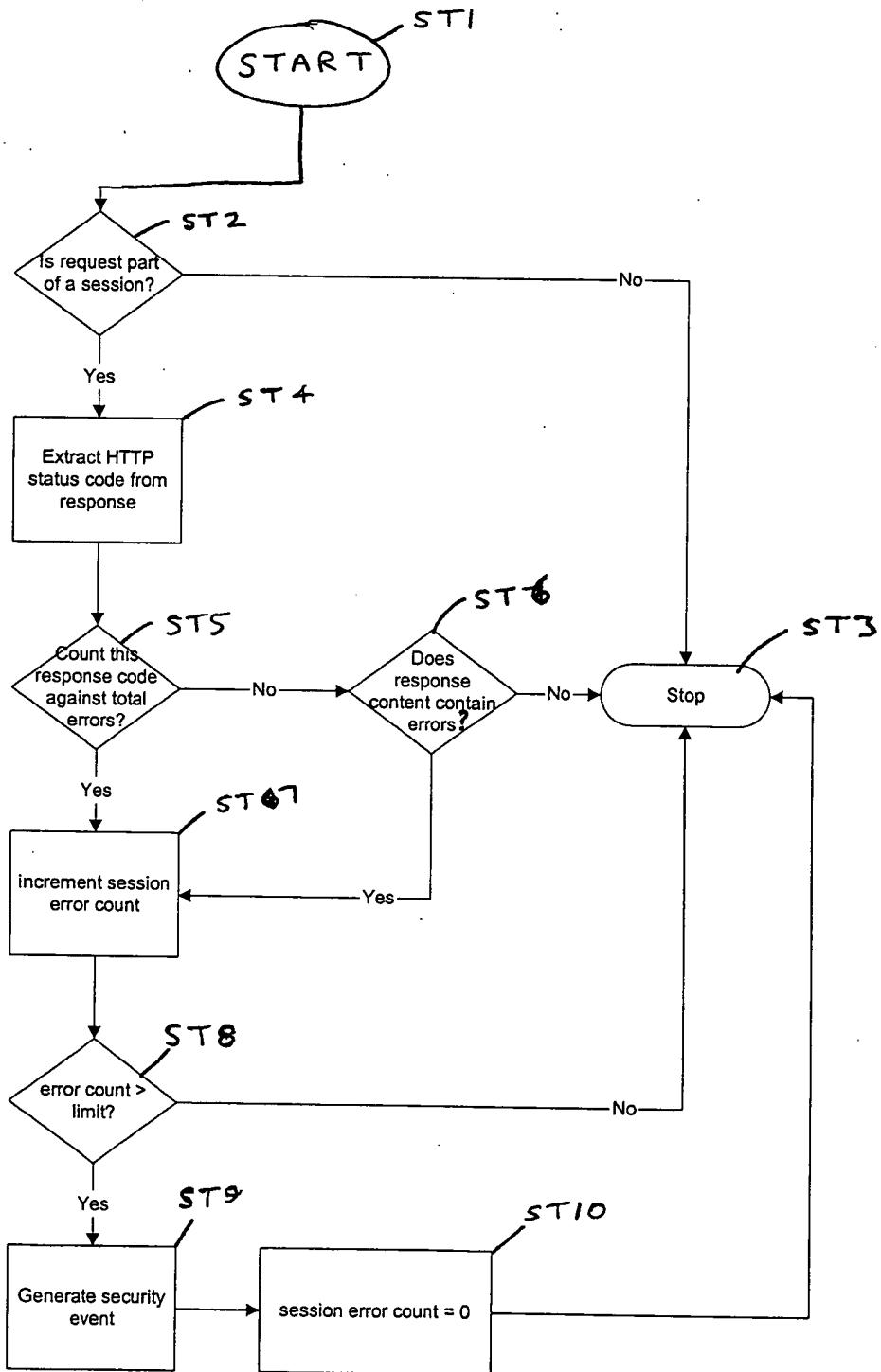


Title: METHODS, SYSTEMS AND COMPUTER
PROGRAM PRODUCTS FOR
MONITORING USER BEHAVIOR FOR
A SERVER APPLICATION
Atty Docket: 1503/4/2



2700

FIG. 27



Title: METHODS, SYSTEMS AND COMPUTER
PROGRAM PRODUCTS FOR
MONITORING USER BEHAVIOR FOR
A SERVER APPLICATION
Atty Docket: 1503/4/2

2800

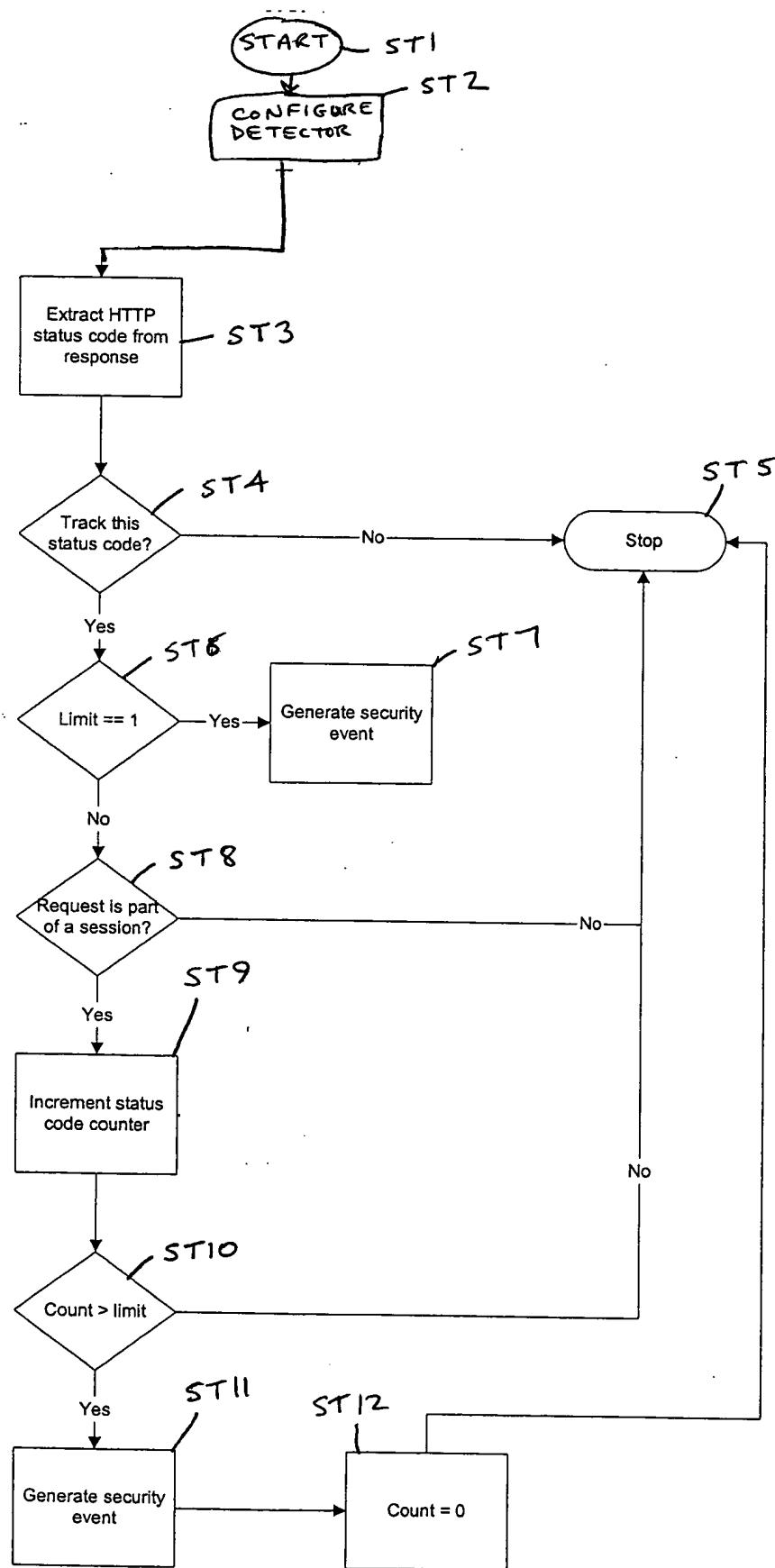


FIG. 28

Title: METHODS, SYSTEMS AND COMPUTER
 PROGRAM PRODUCTS FOR
 MONITORING USER BEHAVIOR FOR
 A SERVER APPLICATION
 Atty Docket: 1503/4/2

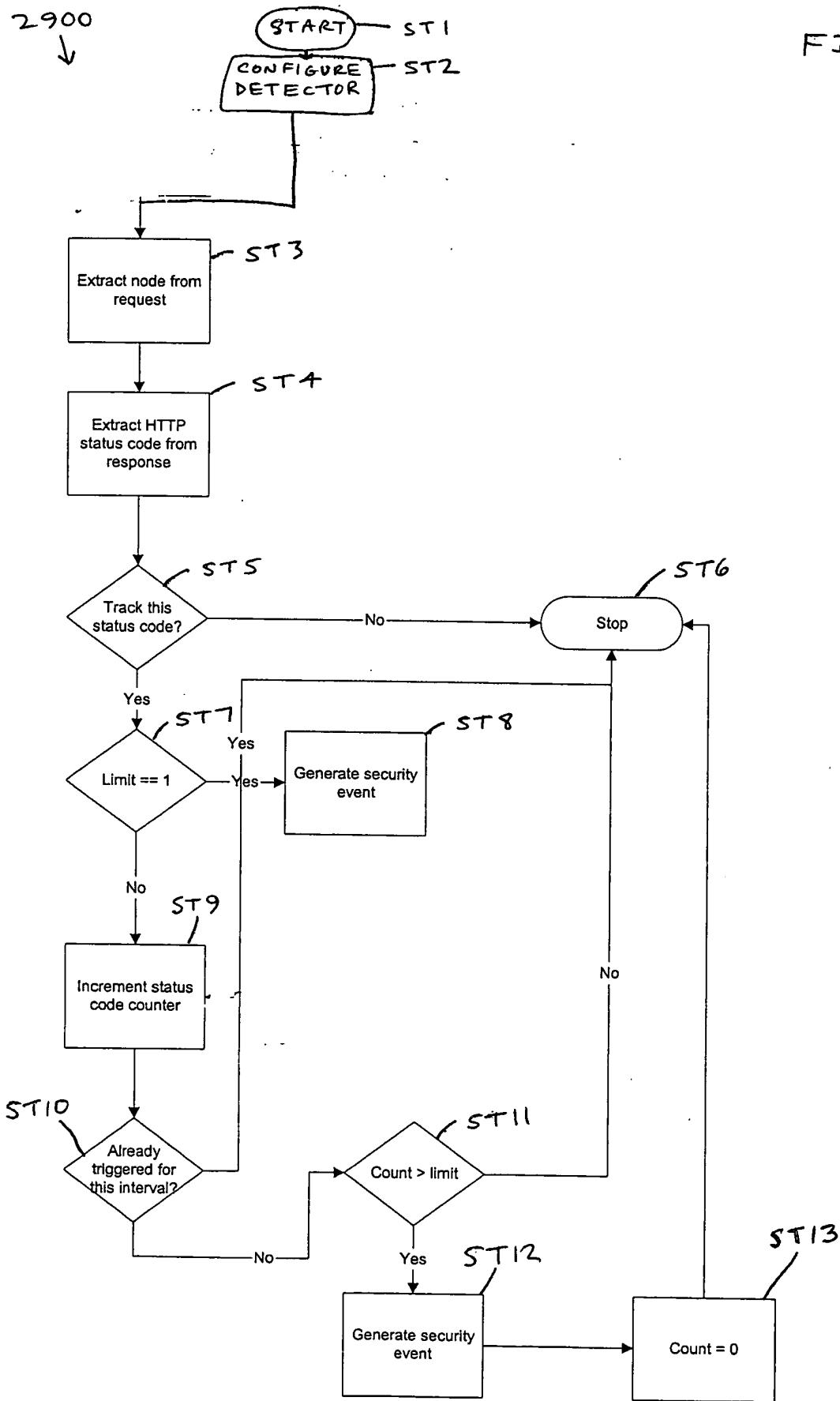
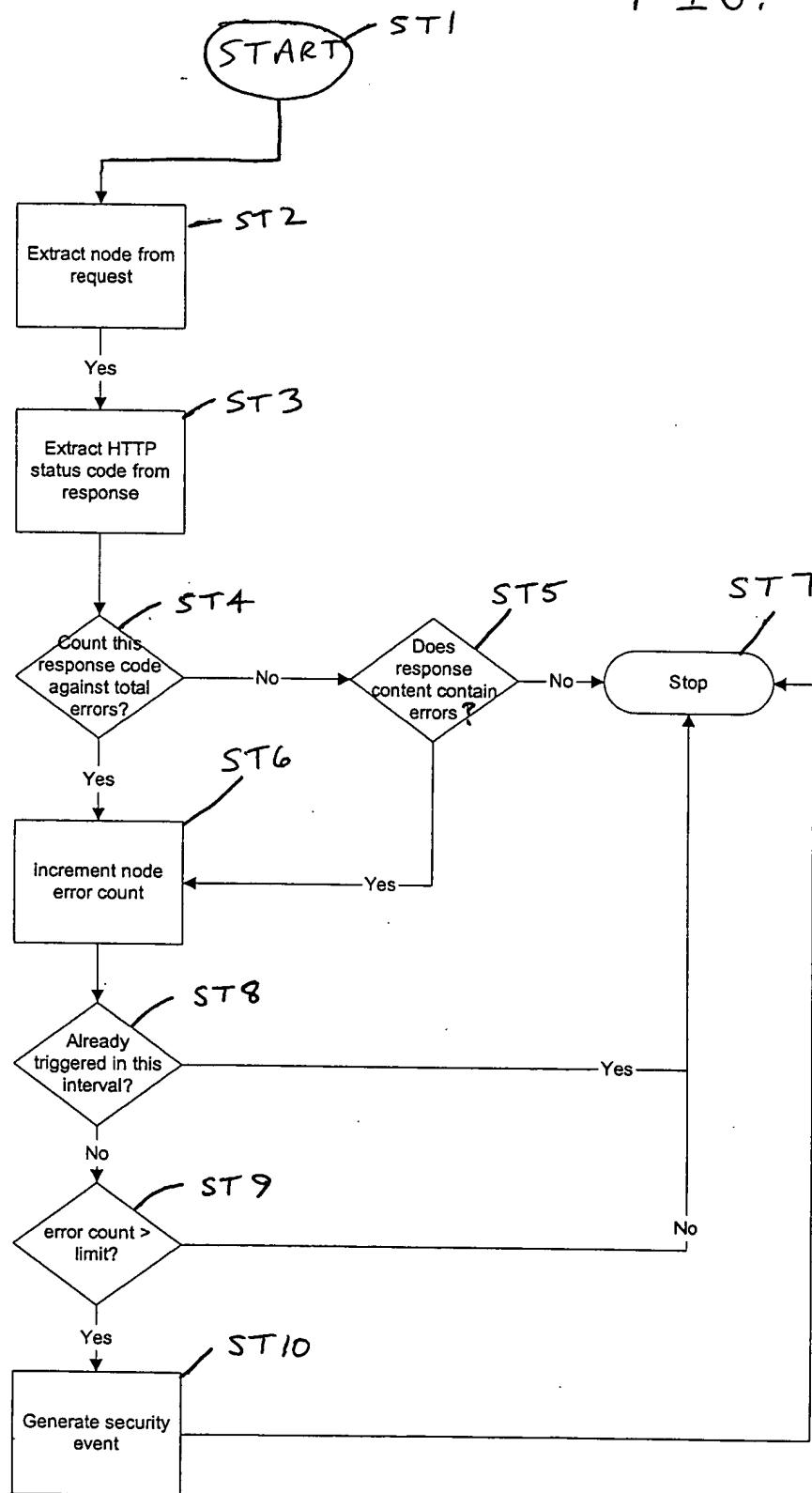


FIG. 29

3000

FIG. 30



3100
↓

FIG. 31

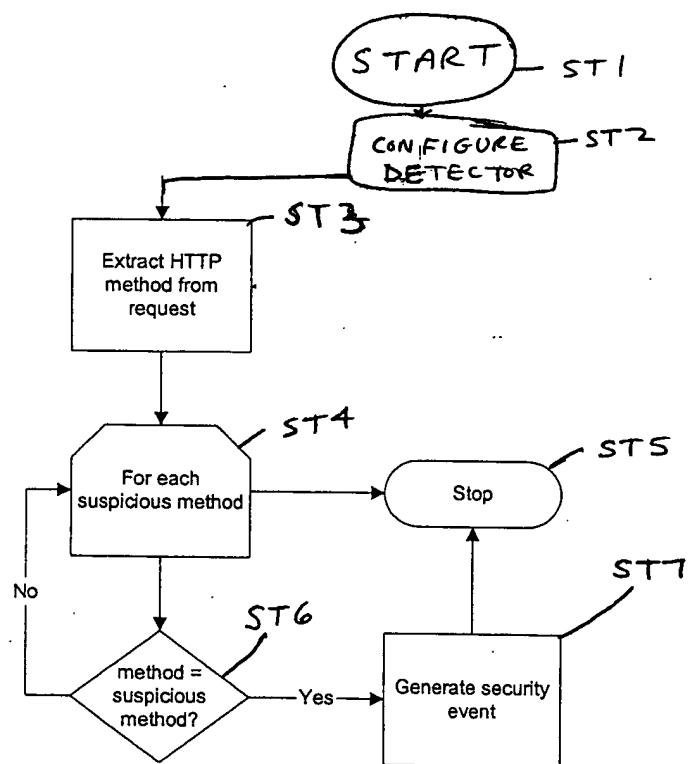
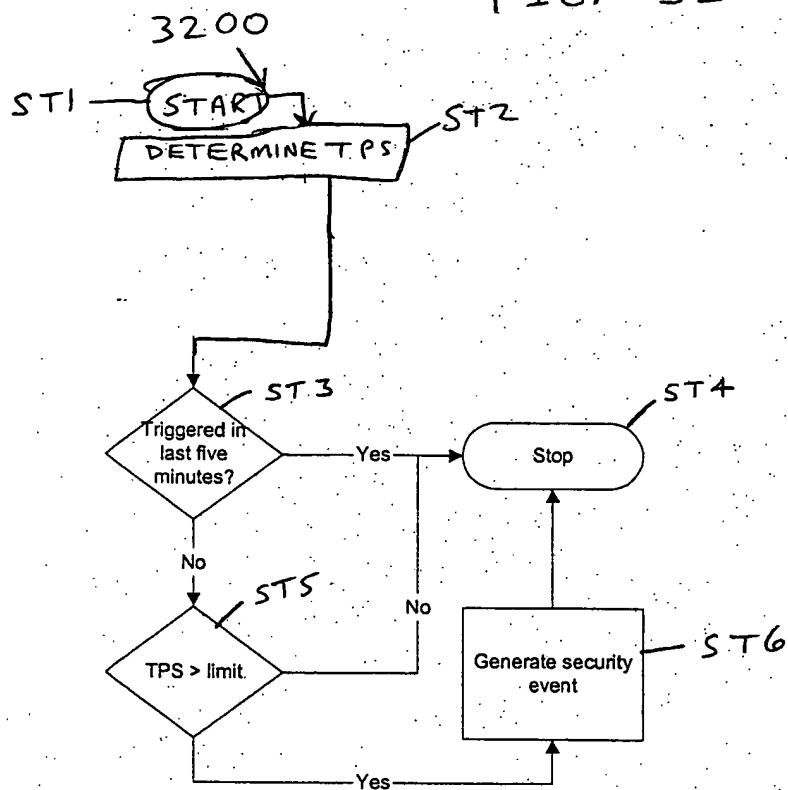


FIG. 32



3300 FIG. 33A.

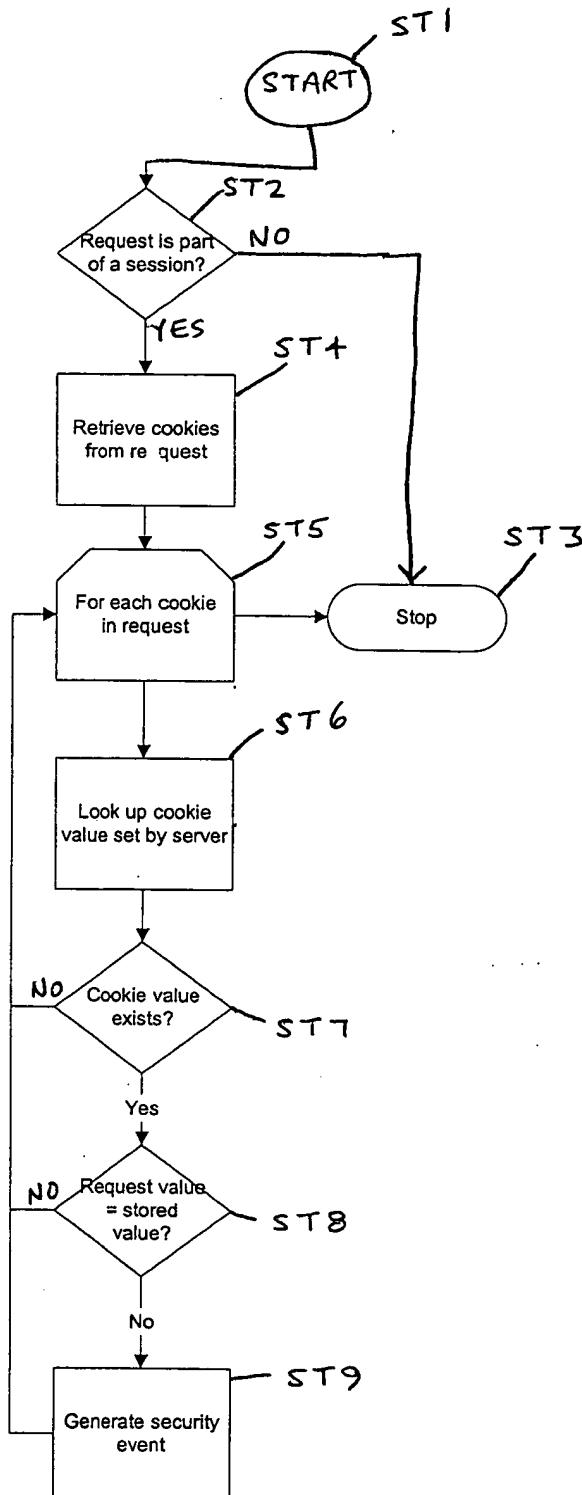


FIG. 33B

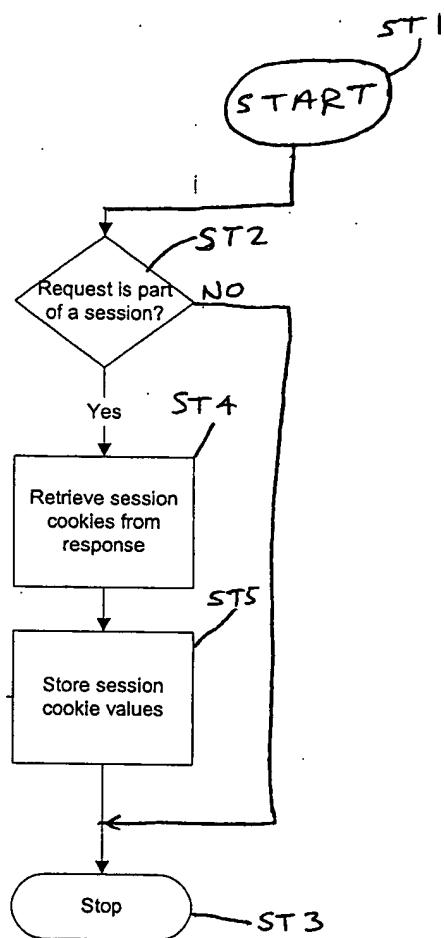


FIG. 34A

3400
 ↓

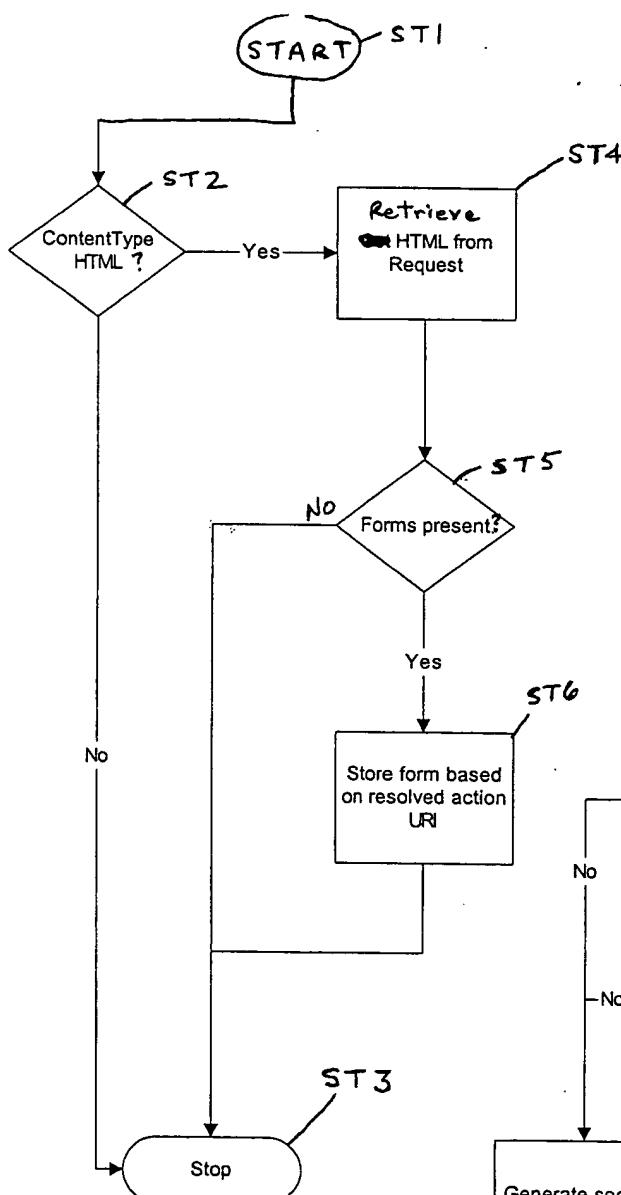
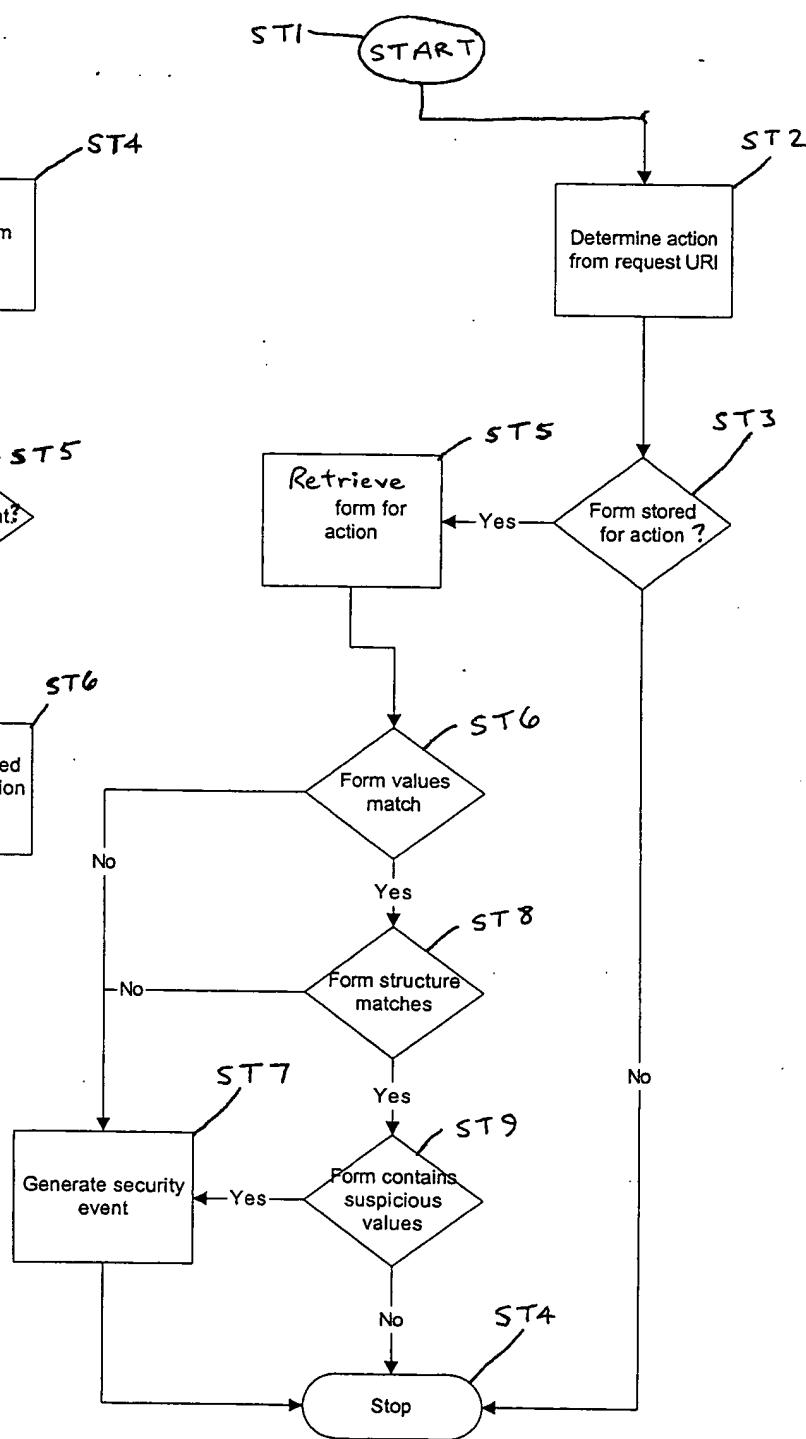


FIG. 34B

3402
 ↓



Title: METHODS, SYSTEMS AND COMPUTER
PROGRAM PRODUCTS FOR
MONITORING USER BEHAVIOR FOR
A SERVER APPLICATION
Atty Docket: 15034/2

FIG. 35

3500

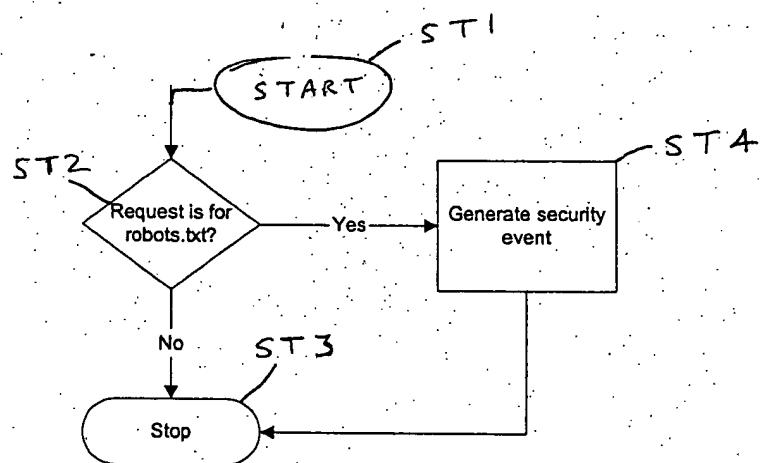


FIG. 36

3600

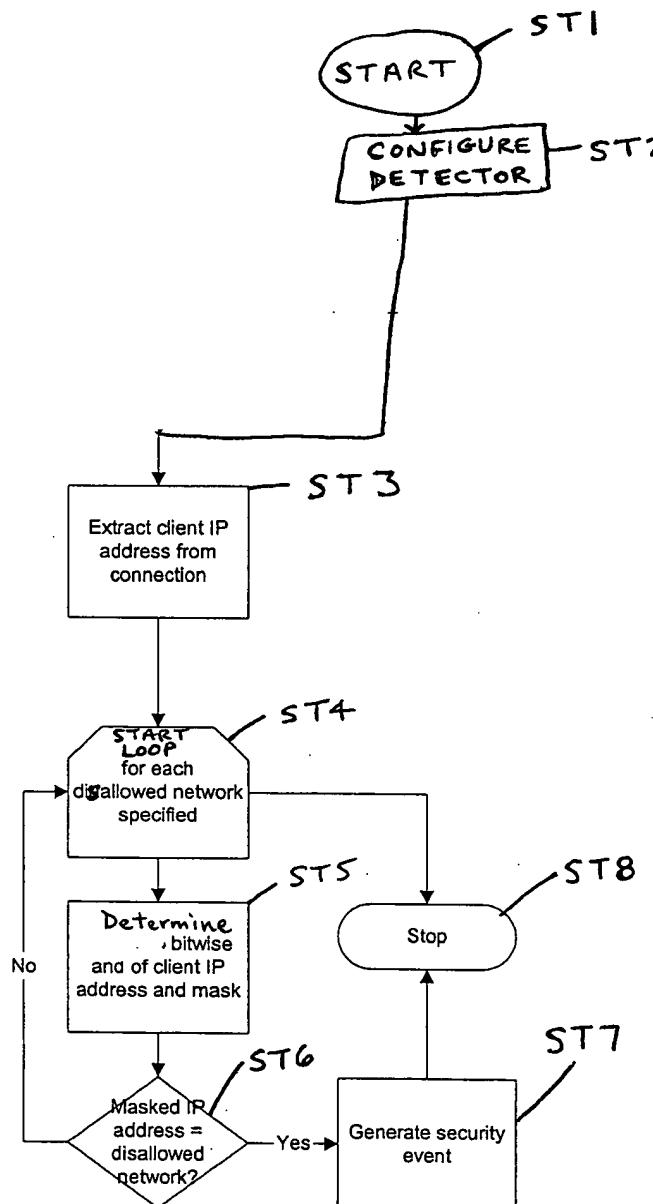


FIG. 37

3700

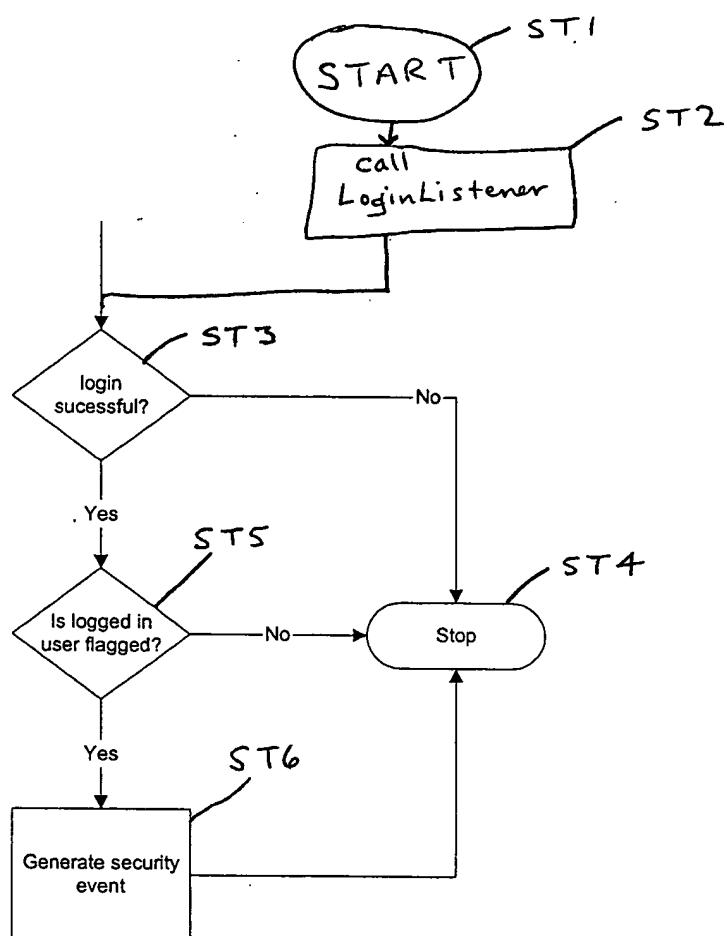


FIG. 38

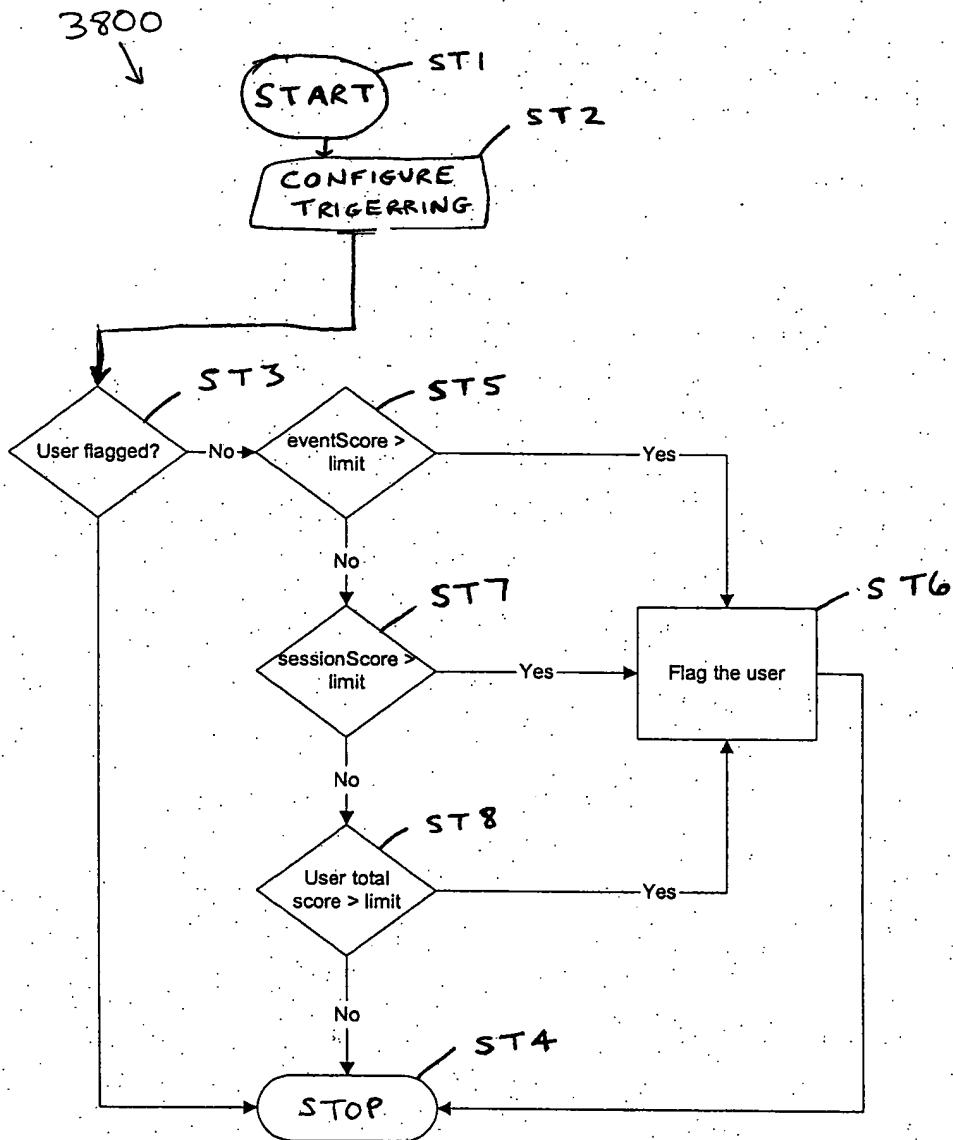


FIG.

39

AP S TPS USER

3902 3912 3914 3916 5018 3920 3922 3924

3902 3912 3914 3916 5018 3920 3922 3924

3926 3928 3930 3932 3934 3936 3938 3940

3906 3908

Summary - Microsoft Internet Explorer

File Edit View Favorites Tools Help

Back Search Favorites Media Print

Address: http://192.168.55.211/main.do?page=page_summary

Current Page: Summary Operator: virgilw (App Score: 3) TPS: 0.7 Users: 20/31 Time: 10:57 AM

covelight systems Application security intelligence

Monitor Analyze Configure AI CI SES SUM

Help About Preferences Logout USE PAG THR

Summary Sessions Users Pages Threats

Active Sessions

User	Session	Client	Score
gperez	NNPJL...	24.151.41.183	10
katied	BCAKL...	24.118.140.178	10
katied	KAACL...	216.187.239.60	10
katied	AEAKL...	216.187.239.60	10
bsmith	LNPJL...	205.216.186.2	10
bsmith	LMPJL...	216.28.152.96	10
bsmith	NHBKL...	205.216.186.2	10
lthrash	IEAKL...	216.253.195.146	10
rhelton	LCAKL...	216.187.239.60	10

Active Users

User	Client	Score	Flagged
wallace	24.123.144.98	10	N
rhelton	216.187.239.60	10	N
lthrash	216.253.195.146	10	N
katied	216.187.239.60	10	N
jon	208.61.139.123	10	N
gperez	216.187.239.60	10	N
bsmith	216.28.152.96	10	N
swims123	58.32.75.6	0	N
sshipton	216.187.239.60	0	N

Pages

URI	Score	Events	Requests
/manual/_DOC.asp	10	1	6
/config/messageDetail.asp	10	1	10
/calendar/calendar.asp	10	1	9
/budget/selectionDetail...	10	1	113
/budget/itemAddMod.asp	10	1	134
/weather/local_radar.asp	0	0	0
/vbs_utils.vbs	0	0	91
/uploads/weather_data/...	0	0	0
/uploads/weather_data/...	0	0	0

Recent Threats

Time	User	Client	Score
1/16/04 10:52 AM	katied	216.187.239.60	0
1/16/04 10:51 AM	btaylor	24.11.194.43	0
1/16/04 10:51 AM	btaylor	24.11.194.43	0
1/16/04 10:48 AM		195.101.54.101	10
1/16/04 10:42 AM	lthrash	216.253.195.146	10
1/16/04 10:40 AM	lthrash	216.253.195.146	0
1/16/04 10:40 AM	lthrash	216.253.195.146	0
1/16/04 10:39 AM	josh	216.187.239.60	0
1/16/04 10:39 AM	katied	216.187.239.60	10

Title: METHODS, SYSTEMS AND COMPUTER
 PROGRAM PRODUCTS FOR
 MONITORING USER BEHAVIOR FOR
 A SERVER APPLICATION
 Atty Docket: 1503/4/2

FIG.
 40A

4000

Sessions - Microsoft Internet Explorer

File Edit View Favorites Tools Help

Back Search Favorites Media

Address http://192.168.55.211/main.d0?page=page_sessions

Current Page: Sessions Operator: virgilw App Score: 3 TPS: 0.7 Users: 20/31 Time: 10:58 AM

Help About Preferences Logout

SES USE PAG THR

SUM Summary Sessions Users Pages Threats

4028 4018 4030 4020 4022 4024 4026

4004 4006 4008 4010 4012 4014 4016

4002

covelight systems (application security intelligence)

Monitor Analyze Configure

Application Sessions

Refresh Reset Filter Export CSV Export XML

Sessions						
Status Summary		Client Summary		Date Summary		
Showing 1-15 of 500 (Total Rows)						
User	Session ID	Threat score	Start time	Requests	Client	Server
Hank.Cyndy	MCBKLCADGOMEPMBJD...	100	1/15/04 8:35 PM	11	205.188.208.168	192.168.2.19
Hank.Cyndy	MCBKLCADGOMEPMBJD...	100	1/16/04 2:13 AM	11	205.188.208.168	192.168.2.19
Hank.Cyndy	MCBKLCADGOMEPMBJD...	100	1/16/04 7:52 AM	11	205.188.208.168	192.168.2.19
?	LOAKLCADHHFMCOCBO...	90	1/16/04 7:19 AM	50	68.118.56.35	192.168.2.19
?	LOAKLCADHHFMCOCBO...	80	1/16/04 1:40 AM	50	68.118.56.35	192.168.2.19
?	LOAKLCADHHFMCOCBO...	80	1/15/04 8:01 PM	50	68.118.56.35	192.168.2.19
kated	AEAKLCADB1JNMCLKI...	70	1/16/04 4:55 AM	691	216.187.239.60	192.168.2.19
kated	AEAKLCADB1JNMCLKI...	60	1/15/04 11:17 PM	691	216.187.239.60	192.168.2.19
?	JCBKLCAADCCBPNCNP...	50	1/16/04 2:13 AM	4	205.188.209.78	192.168.2.19
?	JBKLCAOHMGMBMKFHC...	50	1/15/04 8:45 PM	7	64.118.96.42	192.168.2.19
?	ECBKLCADBLIHNMFPA...	50	1/16/04 7:48 AM	17	198.81.26.40	192.168.2.19
?	NBBKLCAADABKLPGMG...	50	1/16/04 7:12 AM	2	198.81.26.175	192.168.2.19
?	NBBKLCAADABKLPGMG...	50	1/16/04 2:03 AM	2	198.81.26.175	192.168.2.19
?	UAKLCAD1TEMPEPGP1...	50	1/16/04 12:32 AM	1	198.81.26.2	192.168.2.19
?	ECBKLCADBLIHNMFPA...	50	1/16/04 2:09 AM	17	198.81.26.40	192.168.2.19

Internet

FIG. 40B

4032

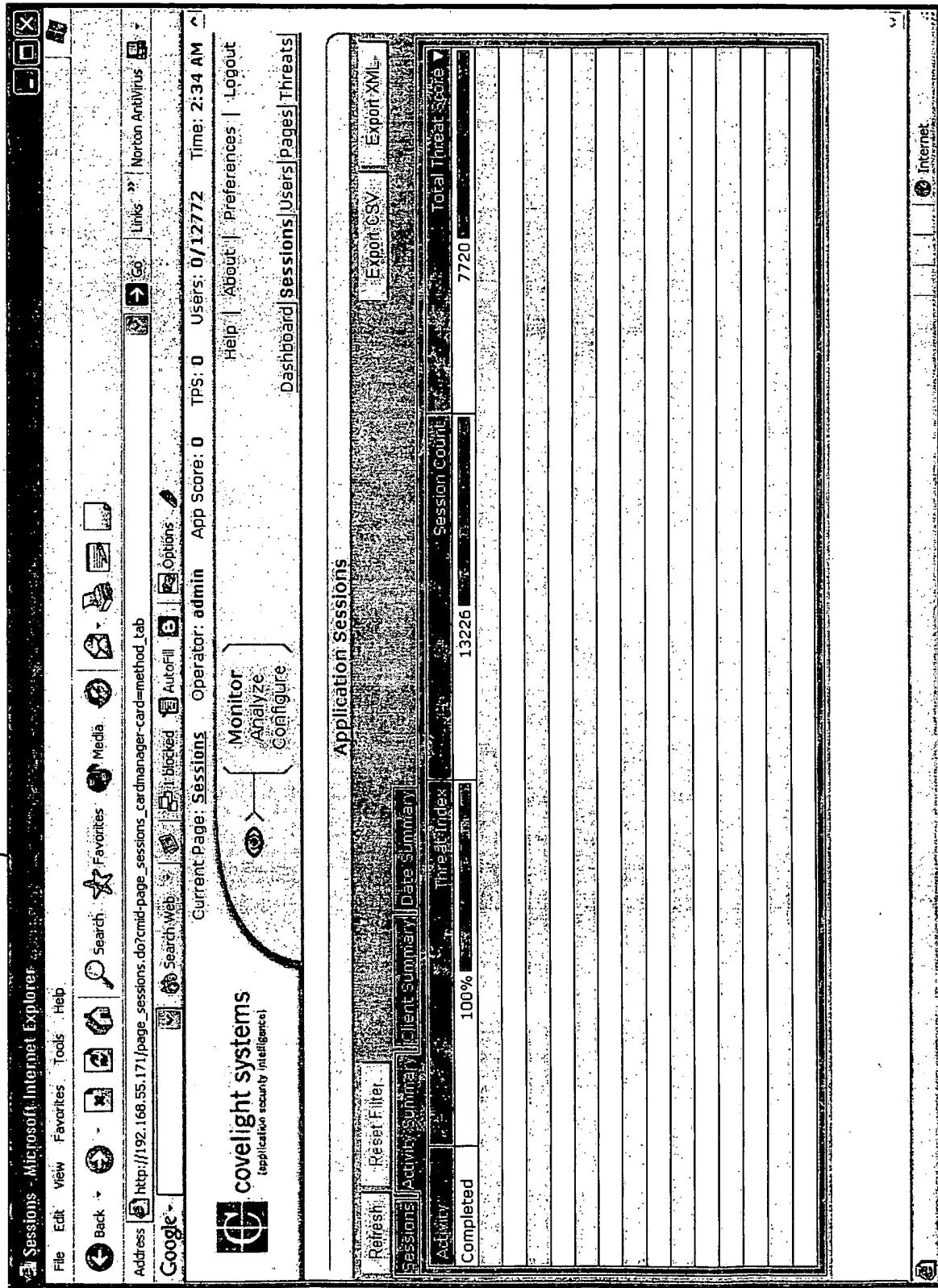
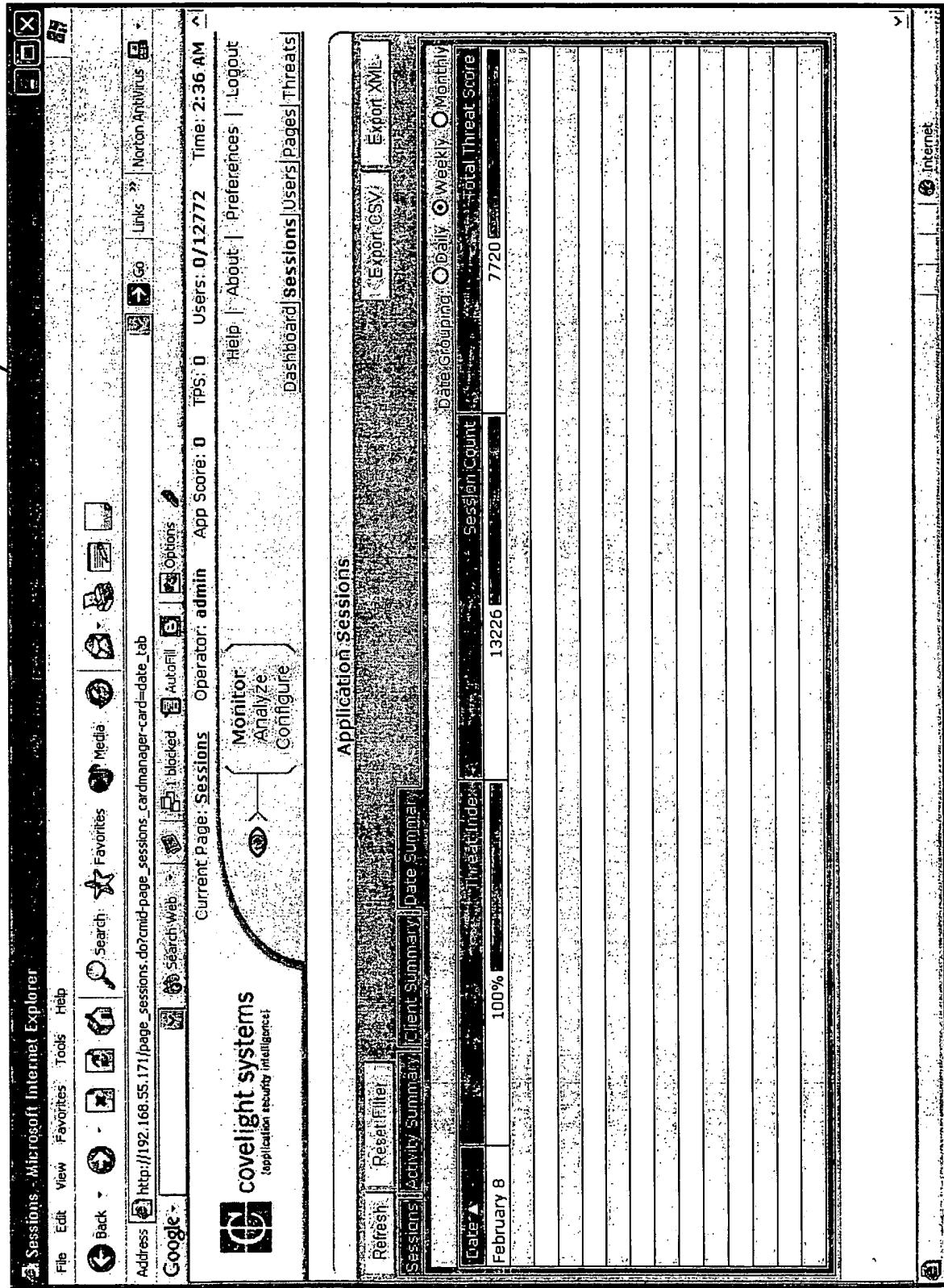


FIG. 40C 4034

Title: METHODS, SYSTEMS AND COMPUTER
PROGRAM PRODUCTS FOR
MONITORING USER BEHAVIOR FOR
A SERVER APPLICATION
Atty Docket: 1503/4/2

FIG. 40D

4036



Title: METHODS, SYSTEMS AND COMPUTER
PROGRAM PRODUCTS FOR
MONITORING USER BEHAVIOR FOR
A SERVER APPLICATION
Atty Docket: 1503/4/2

FIG.

41

4100

Session Detail - Microsoft Internet Explorer

File Edit View Favorites Tools Help

Back Search Favorites Media Stop Refresh Home

Address: http://192.168.55.211/page_sessions.do?rowlink=10742169128341208&tableindex=0&tableid=page_sessions_table

Current Page: Sessions / Session Detail Operator: virgilw App Score: 3 TPS: 0.4 Users: 20/31 Time: 11:04 AM

covelight systems (application security intelligence)

Monitor Analyze Configure

Help | About | Preferences | Logout

SUM SES USE PAG THR

Summary Sessions Users Pages Threats

Session Detail

Session: MCBKLCADGOMEPMB:JDMNCAEON 1/500 Next

User: Hank.Cyndy (Search) Login Method: Login Form

Start Time: 1/15/04 8:35 PM Last Accessed Time: 1/15/04 8:36 PM

Client IP Address: 205.188.208.168 (Search) Server IP Address: 192.168.2.19

Session Threat Score: 100 Request Count: 11

Threats: 4

[View Transactions](#) [View Threats](#)

4102 4104

Done Internet

Title: METHODS, SYSTEMS AND COMPUTER
 PROGRAM PRODUCTS FOR
 MONITORING USER BEHAVIOR FOR
 A SERVER APPLICATION
 Atty Docket: 1503/4/2

FIG.

4200

42

Users - Microsoft Internet Explorer

File Edit View Favorites Tools Help

Back Favorites Media Go Links Norton AntiVirus

Address: http://192.168.55.211/mah.do?page=page_users Current Page: Users Operator: virgilw App Score: 3 TPS: 0.5 Users: 20/31 Time: 10:58 AM

covelight systems Application security intelligence

4220 4222 4224 4226 4228

Monitor Analyze Configure

Help About Preferences Logout
 SUM7 SES USE PAG THR
 Summary Sessions Users Pages Threats

Application Users

Refresh Reset Filter Export CSV Export XML

Users Flagged Summary Client Summary Last Login Summary

User	Current Score	Max Score	Total Score	Total Requests	Avg Requests	Client	Flagged
wallace	10	10	50	82	13	24.123.144.98	N
rhelton	10	20	40	60	20	216.187.239.60	N
lthrash	10	30	100	520	57	216.253.195.146	N
katied	10	70	80	1382	172	216.187.239.60	N
jon	10	25	50	888	296	208.61.139.123	N
operaz	10	20	40	212	70	216.187.239.60	N
bsmith	10	20	40	258	86	216.28.152.96	N
swims123	0	10	20	124	41	68.32.75.6	N
sshipton	0	10	20	36	12	216.187.239.60	N
sdarden	0	10	20	78	26	198.143.244.44	N
scavenger	0	10	30	15	5	216.187.239.60	N
rwarburton	0	40	160	506	46	216.187.239.60	N
mtaylor	0	20	50	598	149	66.180.103.154	N

Recent Delete Search

Internet

4204

4206

4208

4210

4212

4214

4216

4218

4202

Title: METHODS, SYSTEMS AND COMPUTER
PROGRAM PRODUCTS FOR
MONITORING USER BEHAVIOR FOR
A SERVER APPLICATION
Atty Docket: 1503/4/2

FIG. 43

4300

Users - Microsoft Internet Explorer.

File Edit View Favorites Tools Help

Back · Home · Favorites · Media · Stop · Refresh · Search · Favorites · Media · Stop · Refresh ·

Address: http://192.168.55.211/page_users.do?rowlink=wallace&tableIndex=0&tableId=page_users_table Go Links Norton AntiVirus

Current Page: [Users / User Detail](#) Operator: [virgilw](#) App Score: 3 TPS: 0.2 Users: 20/31 Time: 11:05 AM

covelight systems (application security intelligence)

Monitor Analyze Configure

Help | About | Preferences | Logout

SES USE PAG THR

Summary Sessions Users Pages Threats

User Detail

User: wallace 1/31 (Next)

Current Threat Score:	10	Last Login Time:	1/16/04 9:33 AM
Average Session Score:	8	Longest Session Duration:	1m 36s
Highest Session Score:	10	Average Session Duration:	52 s
Total Threat Score:	50	Total Session Time:	5m 13s
Total Threat Count:	11	Last Client IP Address:	24.123.144.98 (Search)
Total HTTP Requests:	82	Last Server IP Address:	192.168.2.19
Average HTTP Requests Per Session:	13	Active Sessions:	2
Last Reset:	Never	Total Sessions:	6

[View Transactions](#) [View Threats](#)

Flagged: Notes: Apply

4302 4304

Done Internet

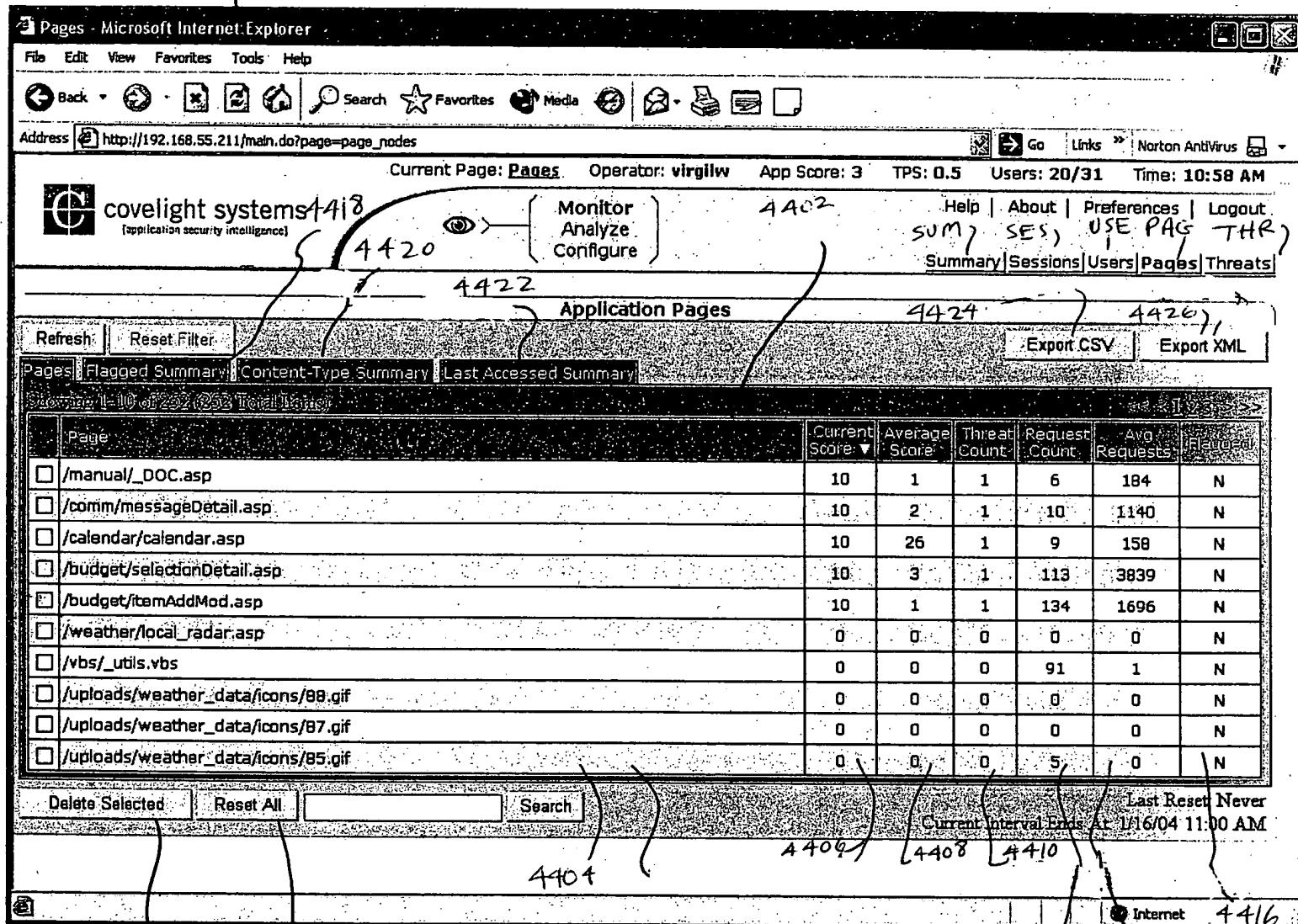
Title: METHODS, SYSTEMS AND COMPUTER
PROGRAM PRODUCTS FOR
MONITORING USER BEHAVIOR FOR
A SERVER APPLICATION
Atty Docket: 1503/4/2

Atty Docket: 1503/4/2

FIG.

44

4400



4429

4430

11

Search

4412 4414

4416

FIG.

45

4500

4500

4502 4504

Page Detail - Microsoft Internet Explorer

File Edit View Favorites Tools Help

Back Search Favorites Media

Address http://192.168.55.211/page_nodes.do?rowlink=%2Fmanual%2F_DOC.asp&tableIndex=0&tableId=page_nodes_table

Current Page: Pages / Page Detail Operator: virgilw App Score: 3 TPS: 1.2 Users: 20/31 Time: 11:05 AM

covelight systems (application security intelligence)

Monitor Analyze Configure

Help About Preferences Logout

SUM SES USE PAG THR

Summary Sessions Users Pages Threats

Page Detail

Page: /manual/_DOC.asp 1/252 Next>

Content-Type: text/html (Search)	Max Interval Score: 10
Total Score: 30	Interval Score: 0
Total Threat Count: 3	Interval Threat Count: 0
Total Request Count: 68	Interval Request Count: 0
Average Score: 1	Average Response Time: 0
Interval Count: 19	Previous Interval Score: 10
Last Accessed: 1/16/04 10:16 AM	

View Transactions View Threats Flagged: Apply

Last Reset: Never Current Interval Ends At: 1/16/04 12:00 PM

Done Internet

Title: METHODS, SYSTEMS AND COMPUTER
 PROGRAM PRODUCTS FOR
 MONITORING USER BEHAVIOR FOR
 A SERVER APPLICATION
 Atty Docket: 1503/4/2

FIG.

4600

46A

Threats - Microsoft Internet Explorer

File Edit View Favorites Tools Help

Back Search Favorites Media Print Address http://192.168.55.211/main.do?page=page_events Go Links Norton AntiVirus

Current Page: Threats Operator: virgilw App Score: 3 TPS: 0.5 Users: 20/31 Time: 10:58 AM

covelight systems (application security intelligence)

4618 4620 4622 4624 4626 4628 4630

Monitor Analyze Configure Help About Preferences Logout

SUM SES USE PAGE THRE

Summary Sessions Users Pages Threats

Refresh Reset Filter Threats Export CSV Export XML

Threats Detector Summary Page Summary Client Summary Server Summary Date Summary

Showing 1-10 of 104 Total Items

Timestamp	Score	Detector	Request URI	User	Flagged	Client IP
1/15/04 11:53 PM	20	Simultaneous login	/project/project.asp	rwarburton	N	216.187.239.60
1/15/04 11:45 PM	10	Login time does not match acceptable window	/auth/login.asp	rwarburton	N	65.140.140.189
1/15/04 11:45 PM	0	User login	/auth/login.asp	rwarburton	N	65.140.140.189
1/15/04 11:35 PM	10	Login time does not match acceptable window	/auth/login.asp	katied	N	216.187.239.60
1/15/04 11:35 PM	0	User login	/auth/login.asp	katied	N	216.187.239.60
1/15/04 11:33 PM	10	Login time does not match acceptable window	/auth/login.asp	btaylor	N	24.11.194.43
1/15/04 11:33 PM	0	User login	/auth/login.asp	btaylor	N	24.11.194.43
1/15/04 11:33 PM	10	Login time does not match acceptable window	/auth/login.asp	btaylor	N	24.11.194.43
1/15/04 11:33 PM	0	User login	/auth/login.asp	btaylor	N	24.11.194.43
1/15/04 11:31 PM	10	Web crawler	/robots.txt	?	N	195.101.94.101
1/15/04 11:23 PM	10	Login time does not match acceptable window	/auth/login.asp	lthrash	N	216.253.195.146
1/15/04 11:23 PM	0	User login	/auth/login.asp	lthrash	N	216.253.195.146
1/15/04 11:23 PM	10	Login time does not match acceptable window	/auth/login.asp	lthrash	N	216.253.195.146
1/15/04 11:23 PM	0	User login	/auth/login.asp	lthrash	N	216.253.195.146
1/15/04 11:22 PM	10	Login time does not match acceptable window	/auth/login.asp	josh	N	216.187.239.60

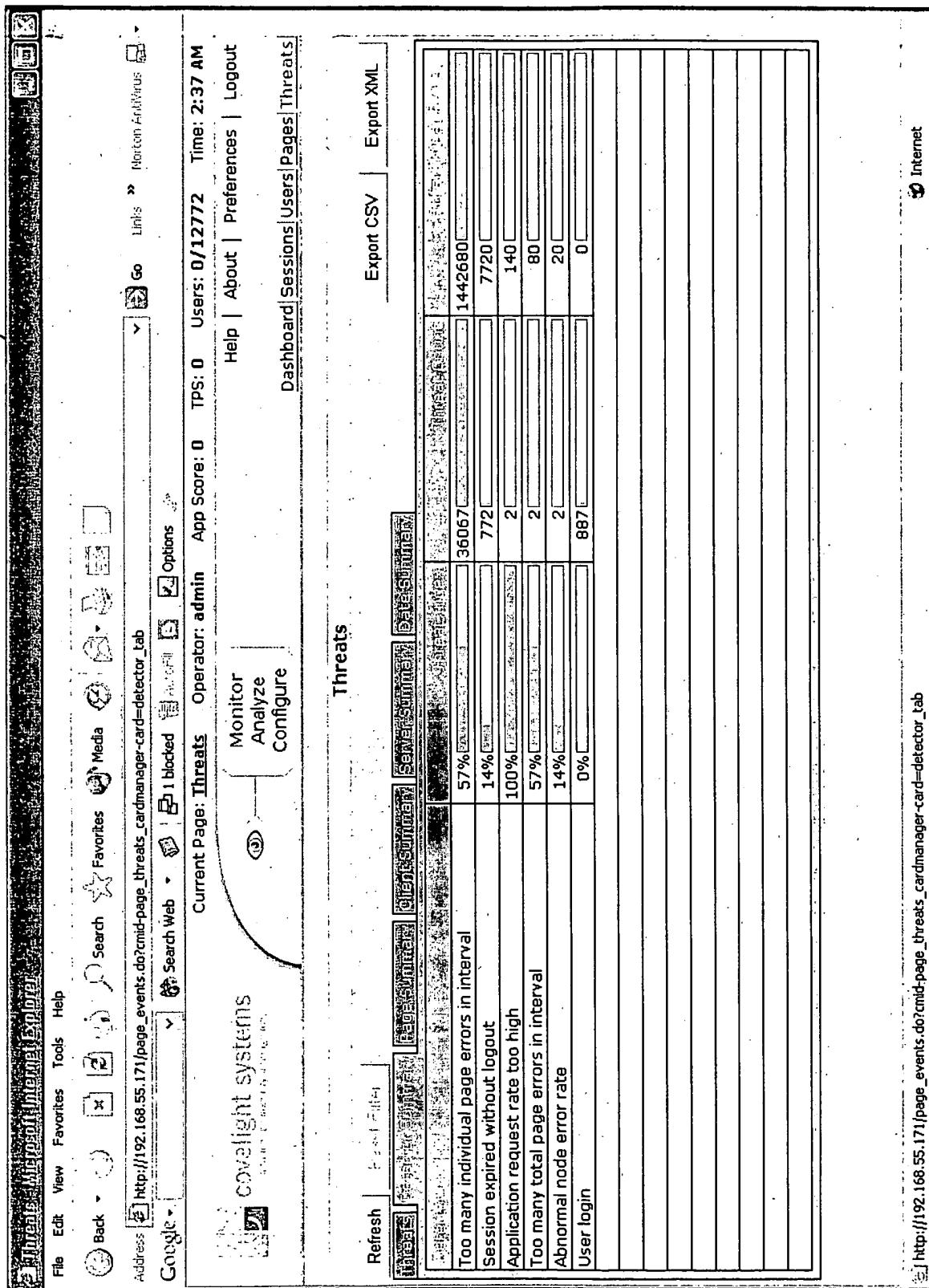
4604 4606 4608 4610 4612 4614 4616

4602

Internet

FIG. 4632

Title: METHODS, SYSTEMS AND COMPUTER PROGRAM PRODUCTS FOR MONITORING USER BEHAVIOR FOR A SERVER APPLICATION
Atty Docket: 1503/4/2



Title: METHODS, SYSTEMS AND COMPUTER PROGRAM PRODUCTS FOR MONITORING USER BEHAVIOR FOR A SERVER APPLICATION
Atty Docket: 1503/4/2

Atty Docket: 1503/4/2

FIG. 46C 4634

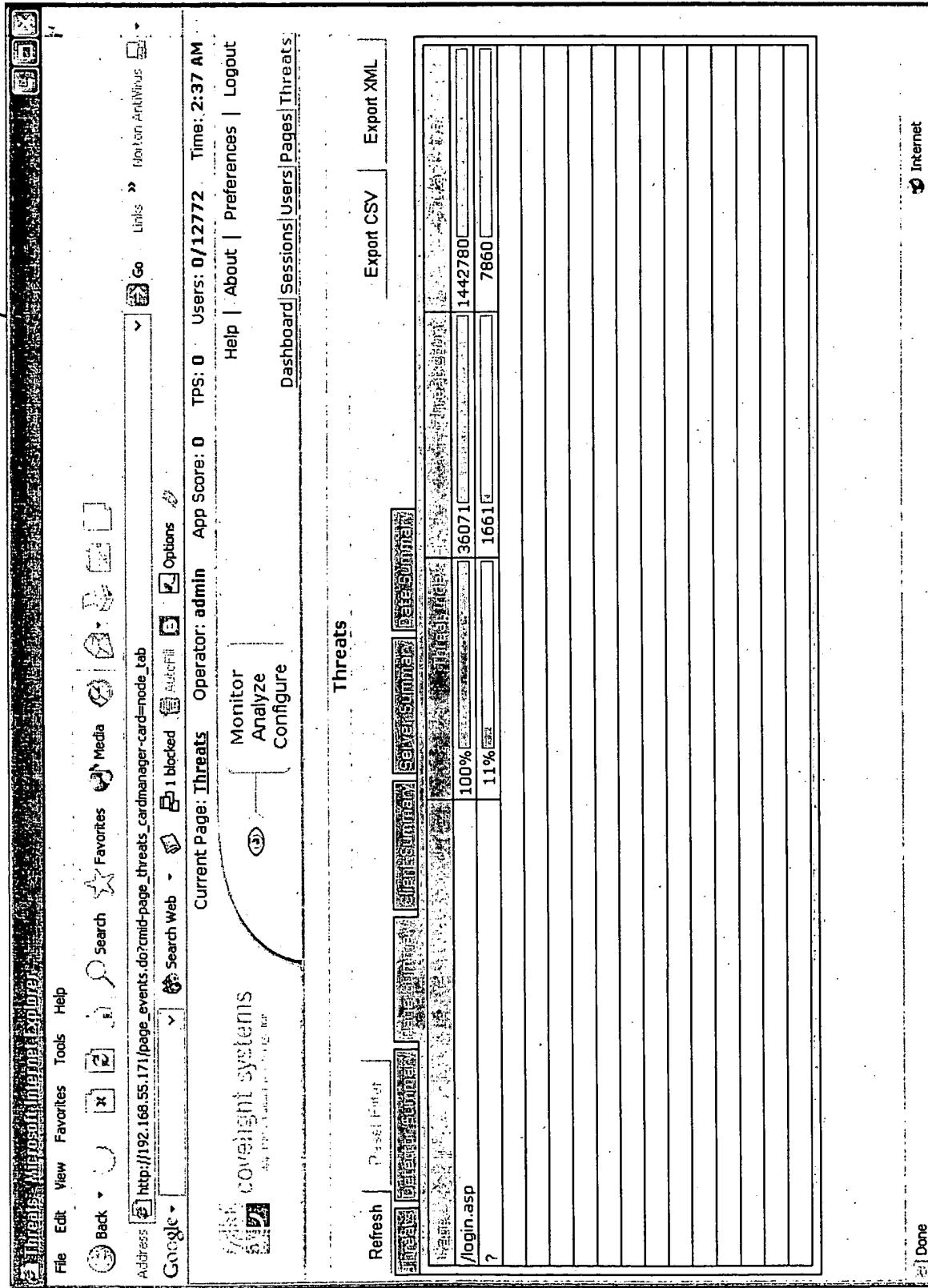


FIG. 46D 4636

Title: METHODS, SYSTEMS AND COMPUTER
PROGRAM PRODUCTS FOR
MONITORING USER BEHAVIOR FOR
A SERVER APPLICATION
Atty Docket: 1503/4/2

The screenshot shows a web application interface with the following details:

- Header:** File, Edit, View, Favorites, Tools, Help, Back, Address: http://192.168.55.171/page_events.do?cmd=page_threats_cardmanager-card=clients.tab, Google.
- Toolbar:** Options, Go, Links, Norton Antivirus.
- Left Sidebar:** Current Page: Threats, Operator: admin, App Score: 0, TPS: 0, Users: 0/12772, Time: 2:38 AM. Sub-options: Monitor, Analyze, Configure.
- Top Navigation:** Dashboard, Sessions, Users, Pages, Threats.
- Threats Section:** Threats, Export CSV, Export XML.
- IP Address Class For Grouping:** IP Address Class For Grouping: A (radio button selected), B, C.
- Table:** IP Address Class For Grouping (partial data shown):

IP Address Class	Count
0.0.0.*	100%
192.168.50.*	11%

- Bottom Right:** Done, Internet.

FIG. 46 E

4638

Title: METHODS, SYSTEMS AND COMPUTER PROGRAM PRODUCTS FOR MONITORING USER BEHAVIOR FOR A SERVER APPLICATION
Atty Docket: 1503/4/2

File Edit View Favorites Tools Help

Back Search Favorites Media

Address http://192.168.55.171/page/events/dotrmid-page_threats_cardmanager-card-server.tab Go Links » Norton AntiVirus

Current Page: Threats Operator: admin App Score: 0 TPS: 0 Users: 0/12772 Time: 2:39 AM

Help | About | Preferences | Logout

Dashboard | Sessions | Users | Pages | Threats

Threats

Refresh Print Export CSV Export XML

Threat Type	Count	Percentage
Malware	36845	100%
Phishing	887	0%
Denial of Service	1450640	0%

ETG. 46F. 4640

Title: METHODS, SYSTEMS AND COMPUTER PROGRAM PRODUCTS FOR MONITORING USER BEHAVIOR FOR A SERVER APPLICATION
Atty Docket: 15034/2

Atty Docket: 1503/4/2

The screenshot shows a Microsoft Internet Explorer window with the following details:

- Address Bar:** http://192.168.55.171/page_events.do?cmd=page_threats_card&date_tab
- Toolbar:** File, Edit, View, Favorites, Tools, Help
- Search Bar:** Google
- Header:** Current Page: Threats Operator: admin App Score: 0 TPS: 0 Users: 0/12772 Time: 2:39 AM
- Left Sidebar:** Threats, Monitor, Analyze, Configure
- Right Sidebar:** Threats, Refresh, Edit Filter, Export CSV, Export XML, Date Grouping: Daily (radio button selected), Weekly, Monthly
- Content Area:** A table showing threat data for February 8, 2017. The table has columns for Date, Threat Type, and Count. The data is as follows:

Date	Threat Type	Count
February 8	100%	37732
February 8	1450640	

F I G.

4700 47

Threat Detail - Microsoft Internet Explorer

File Edit View Favorites Tools Help

Back Favorites Media Go Links Norton AntiVirus

Address: http://192.168.55.211/page_events.do?rowlink=1074228788814103&tableIndex=0&tableId=page_threats_table

Current Page: Threats / Event Detail Operator: virgilw App Score: 3 TPS: 0.4 Users: 20/31 Time: 11:06 AM

covelight systems (application security intelligence) Help | About | Preferences | Logout

SUM SES USE PAG THR
Summary Sessions Users Pages Threats

Threat Detail

1/104 Next>

Timestamp:	1/15/04 11:53 PM
Threat score:	20
Detector:	Simultaneous login (Search)
Description:	User is logged in twice on different sessions
Request URI:	/project/project asg (Search)
User:	rwarburton (Search)
Flagged:	<input type="checkbox"/>
Session ID:	1DAKLCADCGLHMKMICLJKHPLO (Search)
Client IP address:	216.187.239.60 (Search)
Server IP address:	192.168.2.19:80 (Search)

Internet

FIG. 48

4800

1

Transactions - Microsoft Internet Explorer

File Edit View Favorites Tools Help

Back Search Favorites Media Stop Print Refresh Stop

Address: http://192.168.55.211/main.do?page=page_bns

Current Page: Transactions Operator: virgilly App Score: 3 TPS: 0.2 Users: 20/31 Time: 11:00 AM

Monitor MI Help About Preferences Logout
 Analyze AI 4836 4834 4838
 Configure CI 4830 4832 Transactions Network

4822 4824 4826 4828 4830 4832 4834 4836 4838

Transactions

Refresh Reset Filter Export CSV Export XML

Transactions Method Summary Client Summary Page Summary Status Summary Content-Type Summary Server Summary Date Summary

Showing 1-15 of 1000 (250 total items)

Method	URI	User	Status	Content Length	Content Type	Threat Score	Timestamp	Response Time
GET	/	?	302	135	text/html	0	1/16/04 11:00 AM	6
GET	/images/addloc.gif	?	200	1864	image/gif	0	1/16/04 11:00 AM	2
GET	/images/additem.gif	?	200	1529	image/gif	0	1/16/04 11:00 AM	0
GET	/images/selectsum.gif	?	200	2079	image/gif	0	1/16/04 11:00 AM	0
GET	/images/lt_tabnotch.gif	?	200	49	image/gif	0	1/16/04 11:00 AM	0
GET	/images/lt_tabnotch.gif	?	200	49	image/gif	0	1/16/04 11:00 AM	0
GET	/images/s.gif	?	200	43	image/gif	0	1/16/04 11:00 AM	0
GET	/js/menu.js	?	200	897	application/x-javascript	0	1/16/04 11:00 AM	0
GET	/vbs/_utils.vbs	?	200	956	text/vbscript	0	1/16/04 11:00 AM	0
GET	/js/modal.js	?	200	421	application/x-javascript	0	1/16/04 11:00 AM	0
GET	/js/util.js	?	200	5608	application/x-javascript	0	1/16/04 11:00 AM	3
GET	/js/_const.js	?	200	200	application/x-javascript	0	1/16/04 11:00 AM	0
GET	/include/builder_styles/_stylemain.css	?	200	12924	text/css	0	1/16/04 11:00 AM	0
GET	/budget/itemaddmod.asp	jon	200	5488	text/html	0	1/16/04 11:00 AM	199
GET	/budget/selectionDetail.asp	jon	200	10454	text/html	0	1/16/04 11:00 AM	2026

Internet

4804

4802

4806

4808

4810

4812

4814 4816

4818

4820

Title: METHODS, SYSTEMS AND COMPUTER
PROGRAM PRODUCTS FOR
MONITORING USER BEHAVIOR FOR
A SERVER APPLICATION
Atty Docket: 1503/4/2

FIG. 49

4900

Transaction Detail - Microsoft Internet Explorer

File Edit View Favorites Tools Help

Back Favorites Media Go Links Norton AntiVirus

Address: http://192.168.55.211/page_bns.do?rowLink=107426881090038488&tableIndex=18&tableId=page_bns_table

Current Page: Transactions / Transaction Detail Operator: virgilw App Score: 3 TPS: 0.1 Users: 20/31 Time: 11:07 AM

covelight systems (application security intelligence) Help About Preferences Logout

[Transactions](#) [Network](#)

Transaction Detail

Timestamp:	1/16/04 11:00 AM	HTTP response:	302 (Search)
Method:	POST (Search)	Content Length:	175
URI:	/budget/itemAddM od.asp (Search)	Content Type:	text/html (Search)
User:	1 (Search)	Server Response Time:	2.8 s
Client IP Address:	66.180.103.154 (Search)	Server IP Address:	192.168.2.19:80 (Search)
Session ID:	1 (Search)	<Previous Next>	

Parameters

Name	Value
lngAttachmentsCount	0
chkInventory	0
lngEventId	
txtItemDesc	co #3
blnNewItem	False
DeleteOneAttachment	
actionType	Save
strWebLink	
lngLocationId	650189281
lngOldProjectId	560003098
olditemID	
itemID	501077459
txtItemInfo	
lngSelectionId	600062400

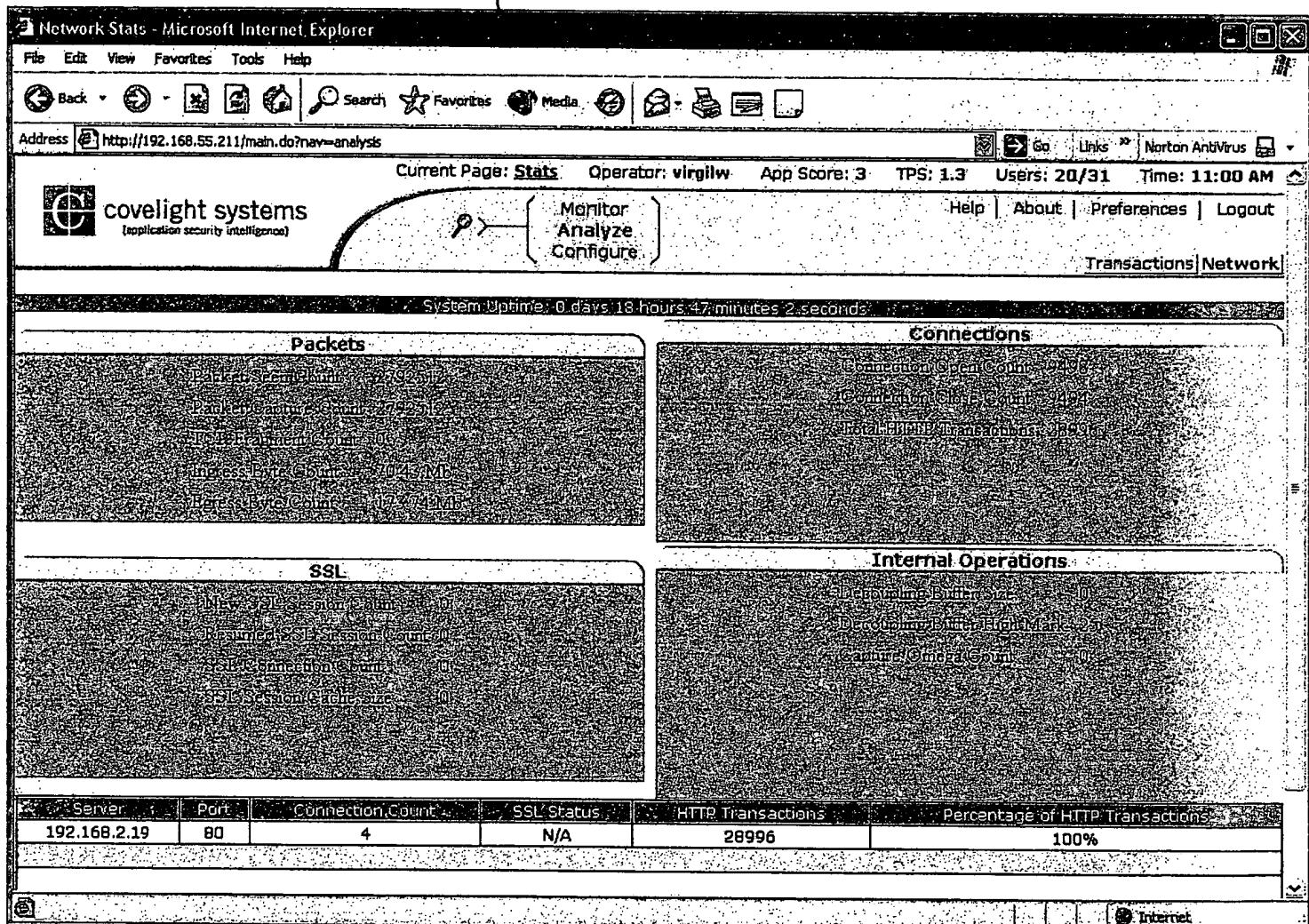
Done Internet

Title: METHODS, SYSTEMS AND COMPUTER
PROGRAM PRODUCTS FOR
MONITORING USER BEHAVIOR FOR
A SERVER APPLICATION
Atty Docket: 1503/4/2

FIG.

50

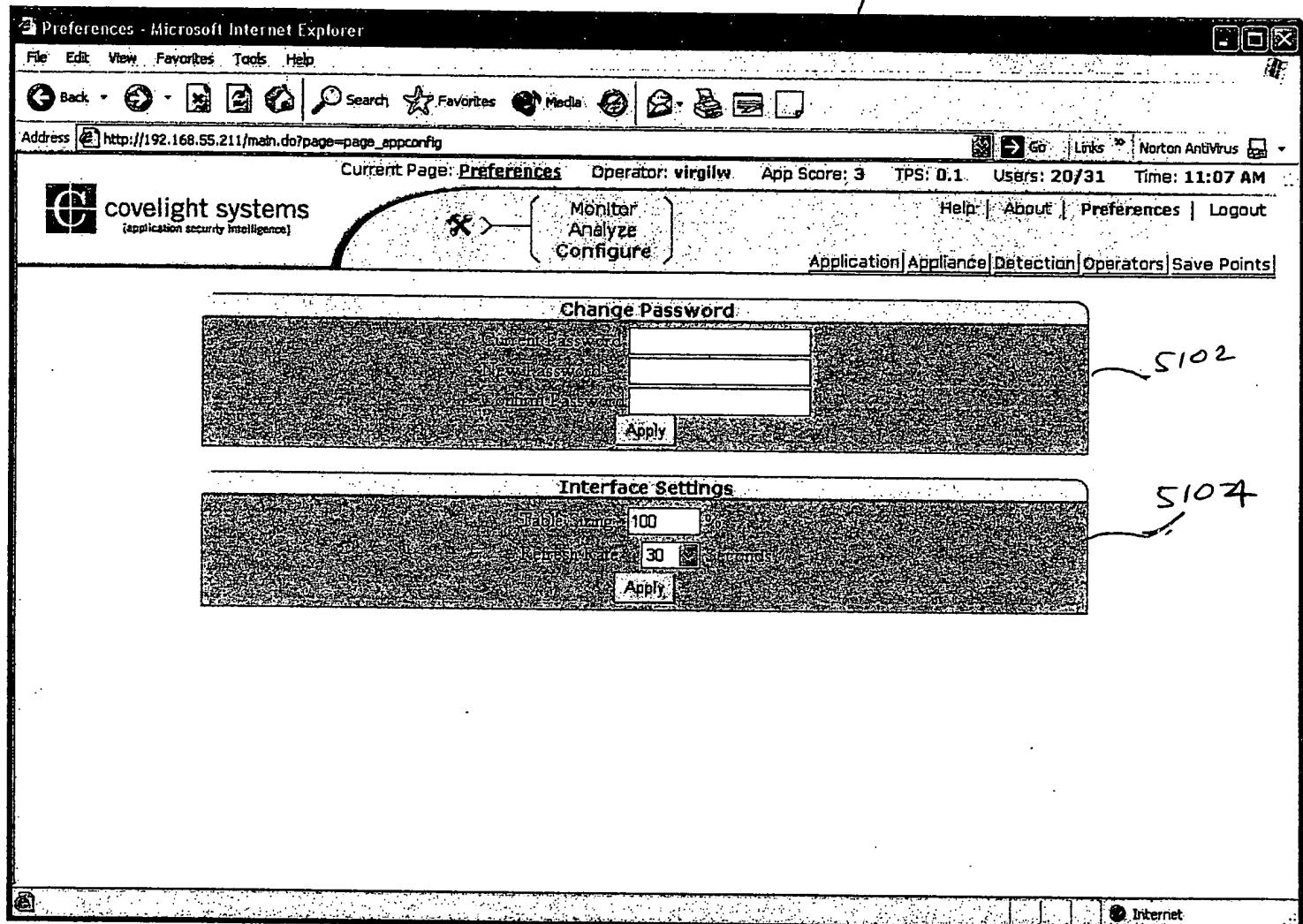
5000



Title: METHODS, SYSTEMS AND COMPUTER
PROGRAM PRODUCTS FOR
MONITORING USER BEHAVIOR FOR
A SERVER APPLICATION
Atty Docket: 1503/4/2

FIG. 51

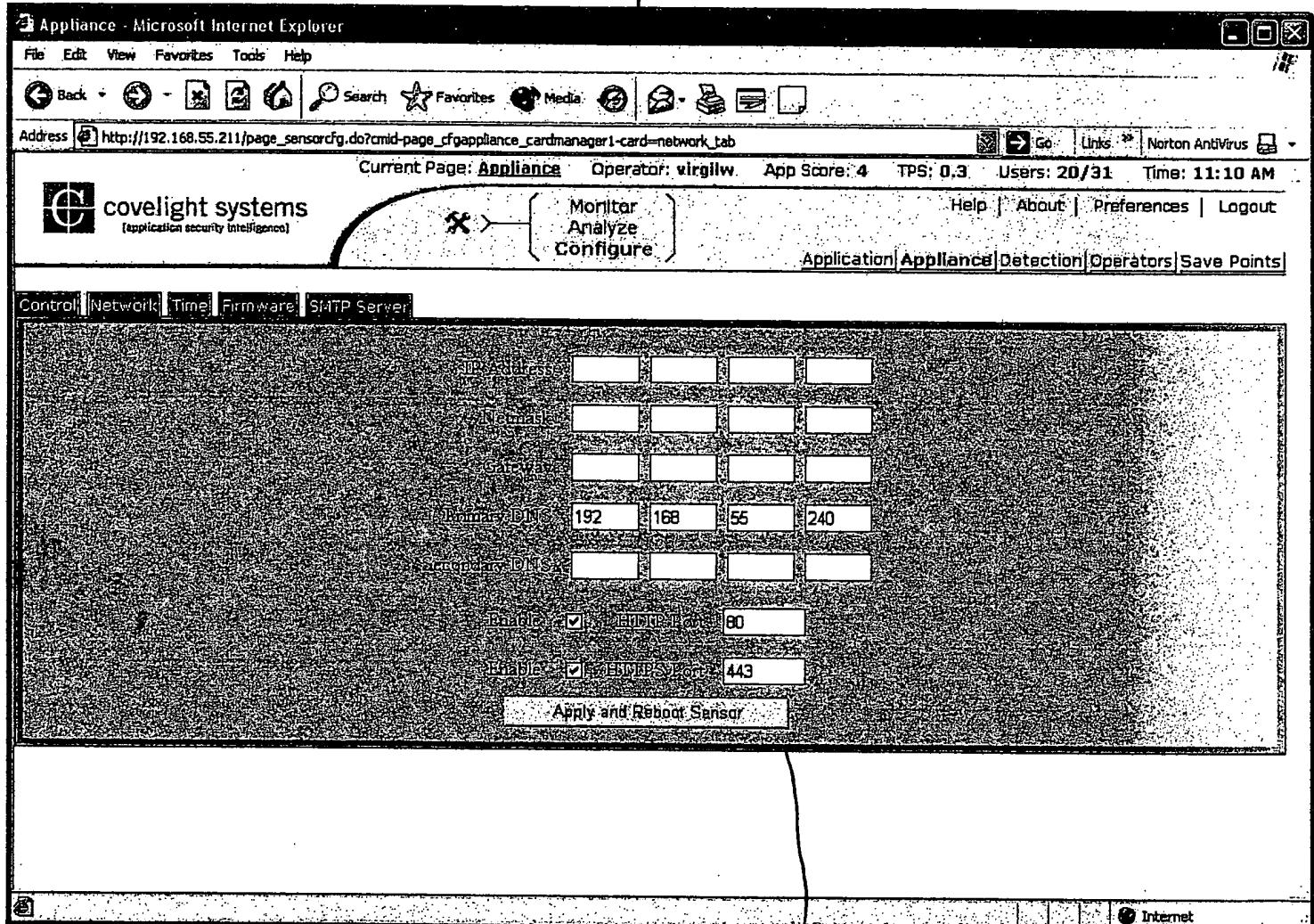
5100



Title: METHODS, SYSTEMS AND COMPUTER
PROGRAM PRODUCTS FOR
MONITORING USER BEHAVIOR FOR
A SERVER APPLICATION
Atty Docket: 1503/4/2

FIG. 52

520°

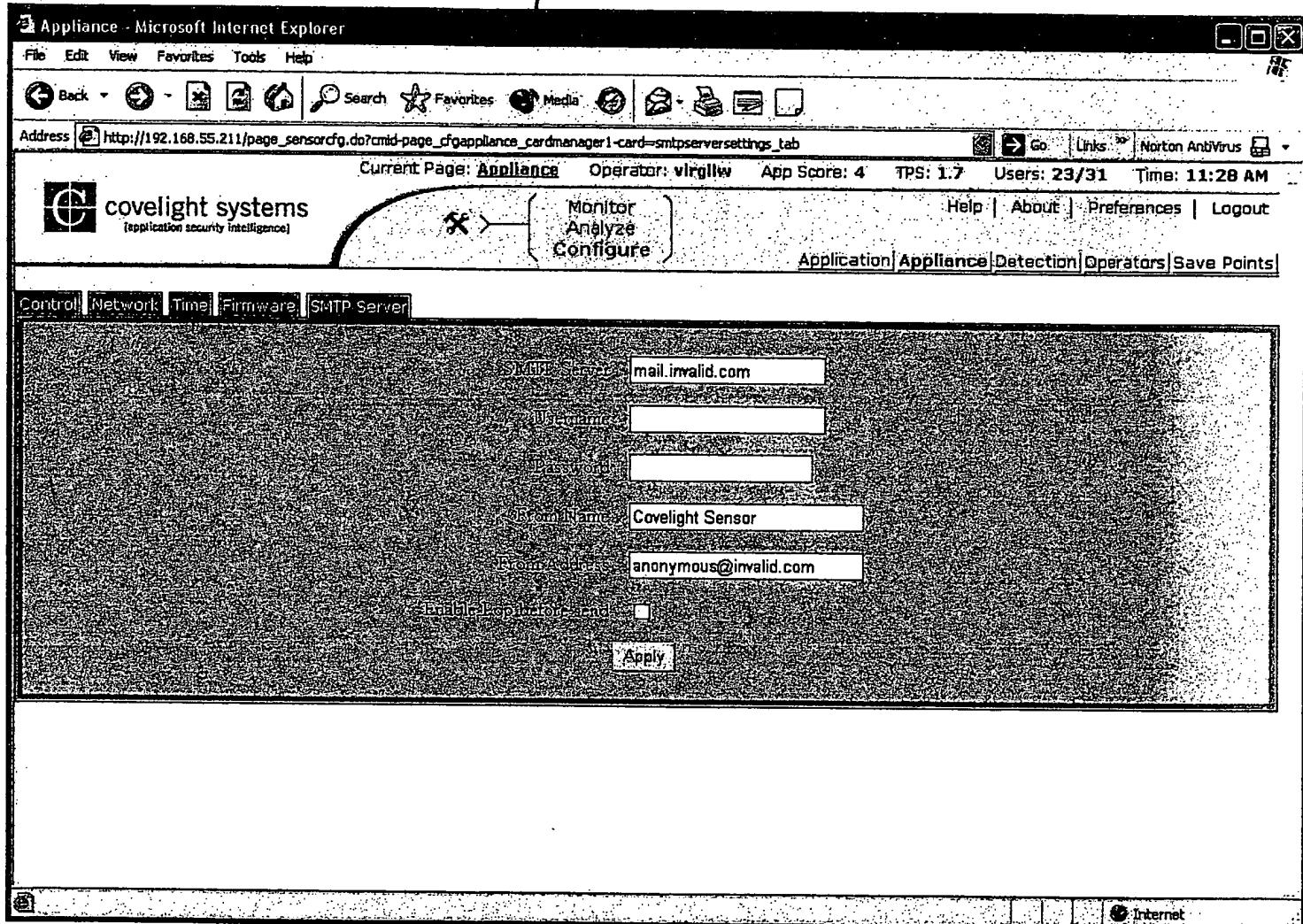


520°

Title: METHODS, SYSTEMS AND COMPUTER
PROGRAM PRODUCTS FOR
MONITORING USER BEHAVIOR FOR
A SERVER APPLICATION
Atty Docket: 1503/4/2

FIG. 53

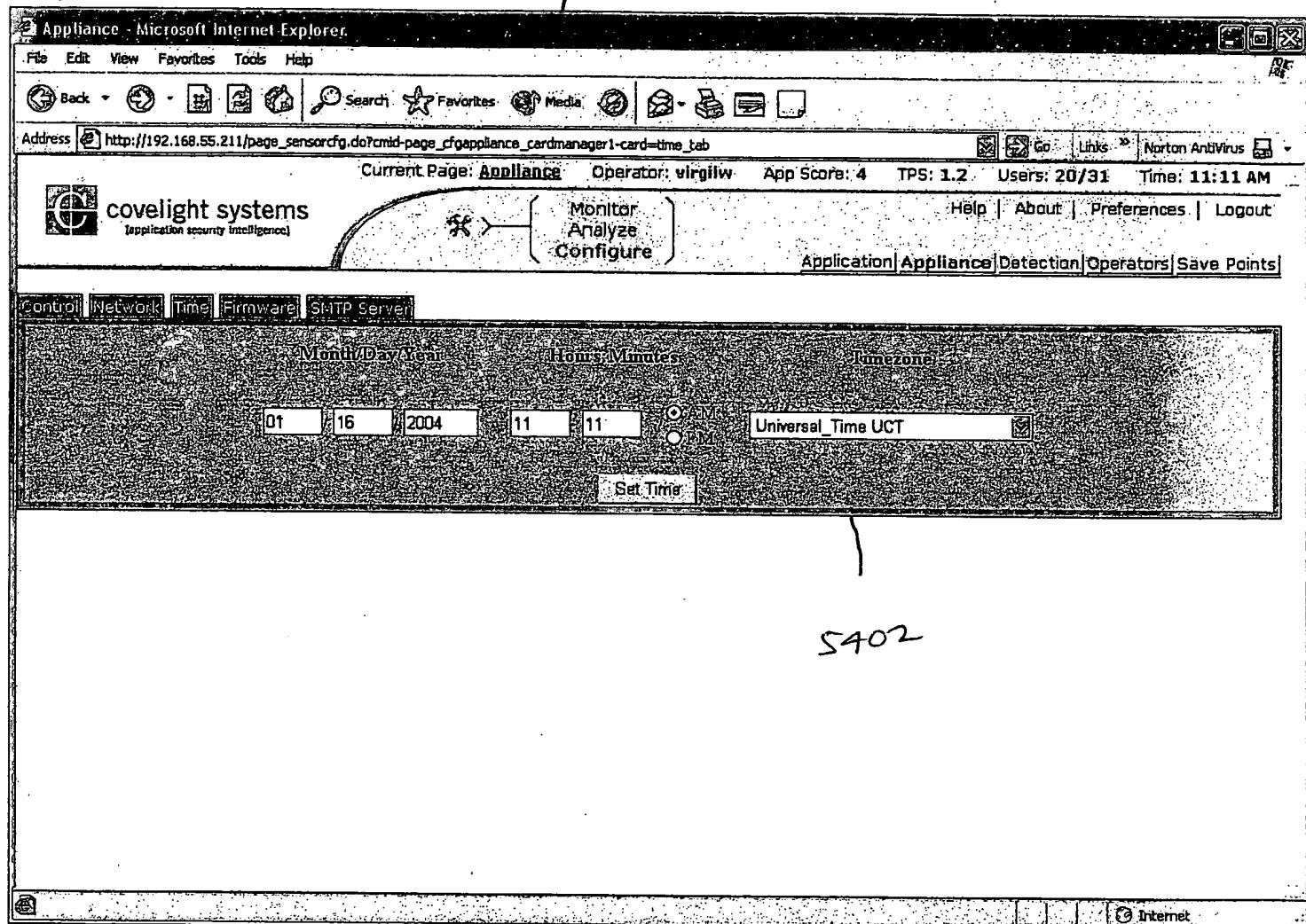
5300



Title: METHODS, SYSTEMS AND COMPUTER
PROGRAM PRODUCTS FOR
MONITORING USER BEHAVIOR FOR
A SERVER APPLICATION
Atty Docket: 1503/4/2

FIG. 54

5400

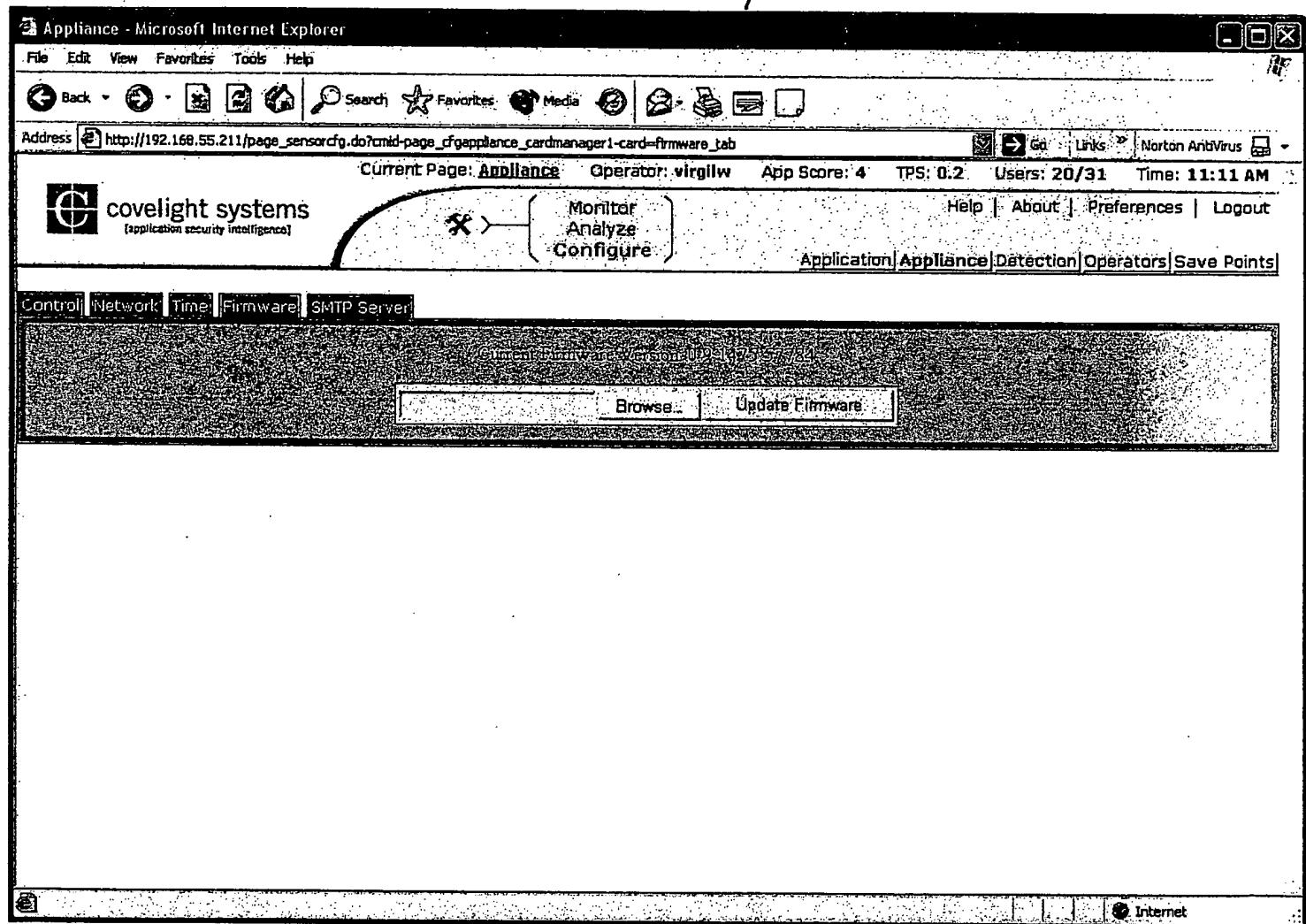


5402

Title: METHODS, SYSTEMS AND COMPUTER
PROGRAM PRODUCTS FOR
MONITORING USER BEHAVIOR FOR
A SERVER APPLICATION
Atty Docket: 1503/4/2

FIG. 55.

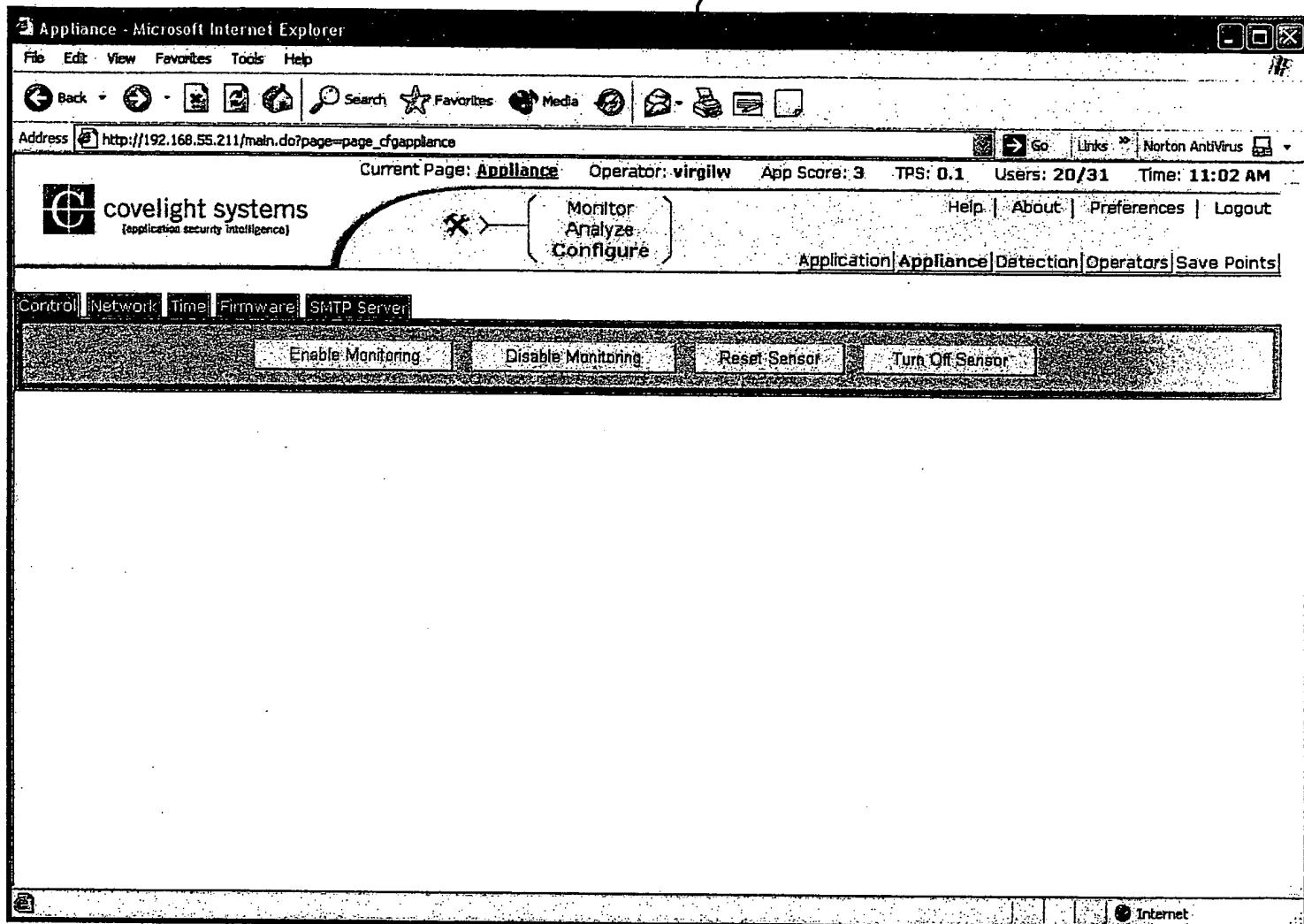
5500



Title: METHODS, SYSTEMS AND COMPUTER
PROGRAM PRODUCTS FOR
MONITORING USER BEHAVIOR FOR
A SERVER APPLICATION
Atty Docket: 1503/4/2

FIG. 56

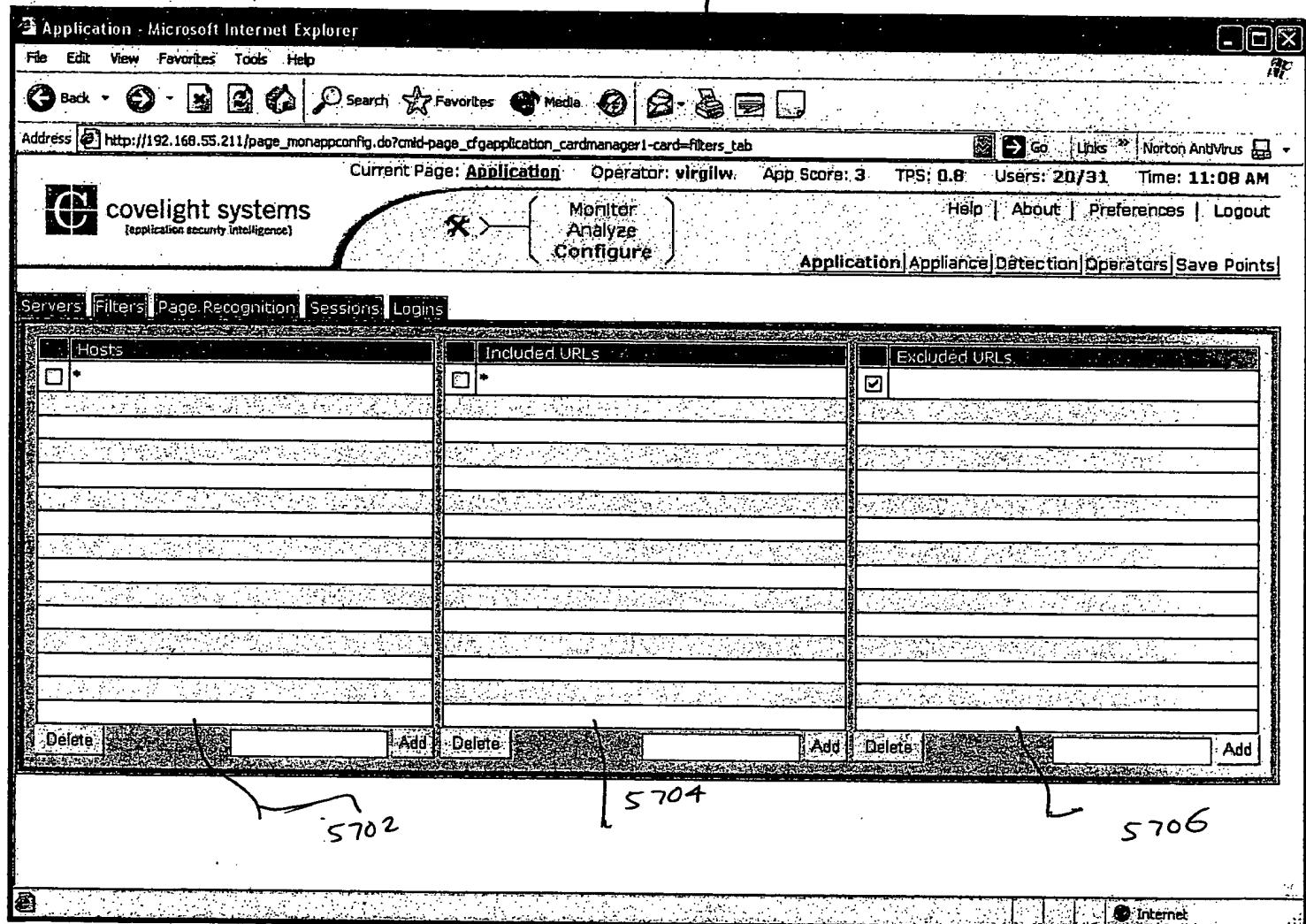
5600



Title: METHODS, SYSTEMS AND COMPUTER
PROGRAM PRODUCTS FOR
MONITORING USER BEHAVIOR FOR
A SERVER APPLICATION
Atty Docket: 1503/4/2

FIG. 57

5700



Title: METHODS, SYSTEMS AND COMPUTER
PROGRAM PRODUCTS FOR
MONITORING USER BEHAVIOR FOR
A SERVER APPLICATION
Atty Docket: 1503/4/2

FIG. 58

5800

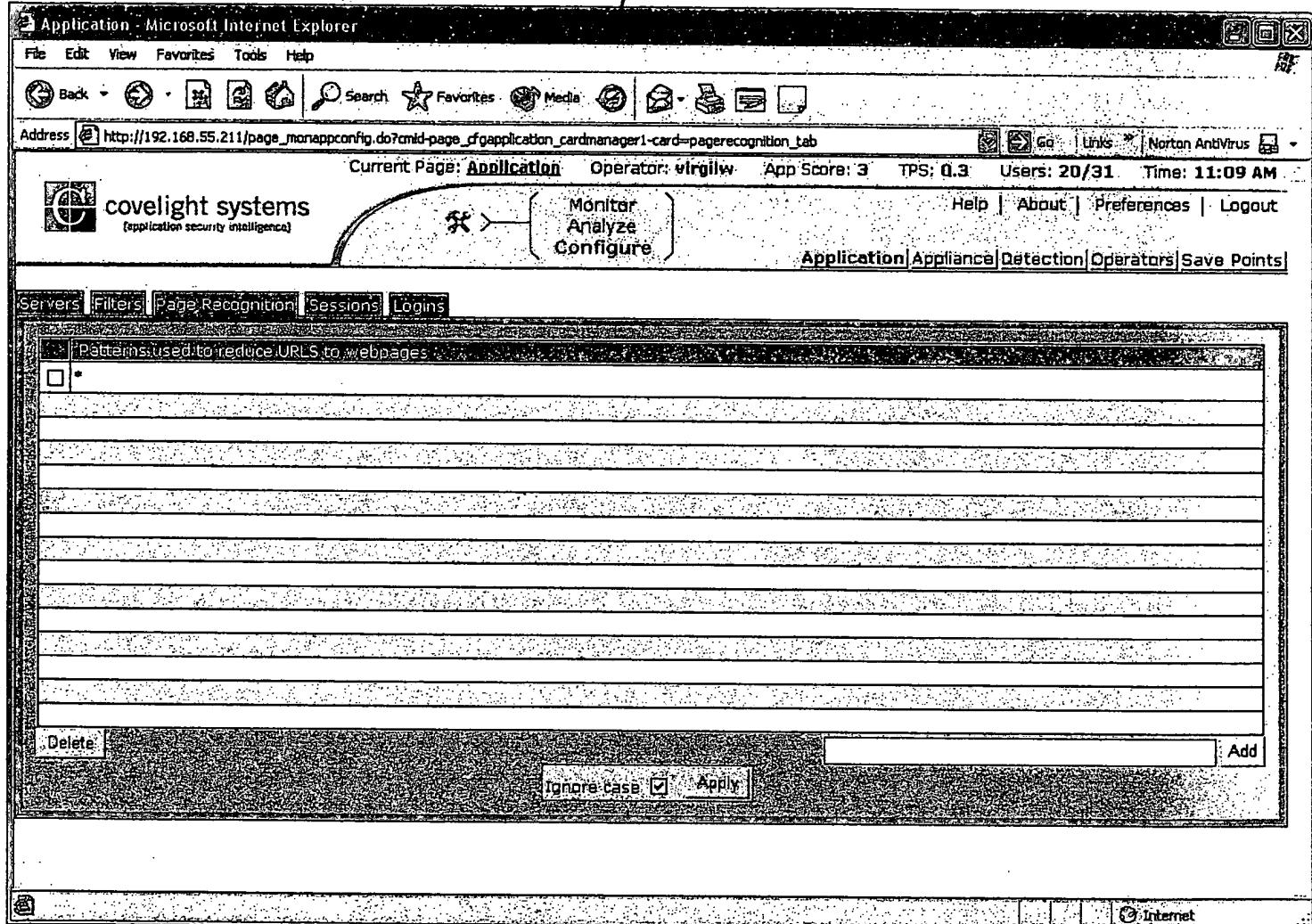


FIG. 59

5900

Application - Microsoft Internet Explorer

File Edit View Favorites Tools Help

Back Search Favorites Media Stop Refresh Stop Refresh

Address: http://192.168.55.211/page_sessiondetectioncfg.do?cmid=page_ofapplication_cardmanager1-card=sessions_tab

Go Links Norton AntiVirus

Current Page: Application Operator: virgilw App Score: 3 TPS: 0.2 Users: 20/31 Time: 11:09 AM

covelight systems (application security intelligence)

Monitor Analyze Configure

Help About Preferences Logout

Application Appliance Detection Operators Save Points

Servers Filters Page Recognition Sessions Logins

Session Management

Standard JSESSIONID sessions

Standard JSESSIONID sessions

Standard JSESSIONID sessions

Custom sessions

Application Server Features

Permissive sessions Session timeout (minutes): 125

Strict sessions Enable GZIP compression

Custom Settings

Session ID cookie based

Custom cookie name: ASPSESSIONID

The application name is automatically added to the cookie name

Session ID may be encoded as a query parameter in URLs

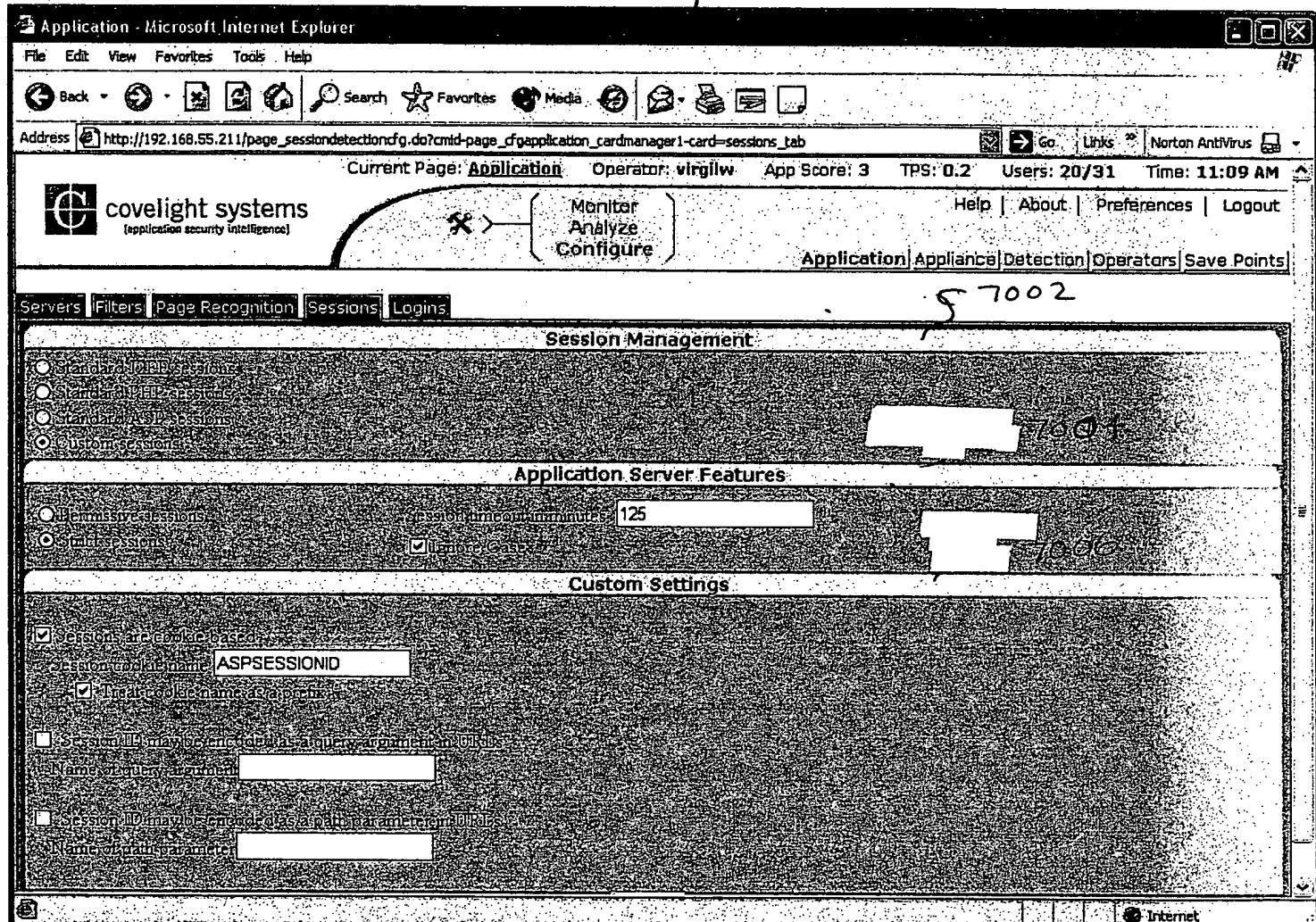
Name of query parameter:

Session ID may be encoded as a path parameter in URLs

Name of path parameter:

Internet

57002



Title: METHODS, SYSTEMS AND COMPUTER
PROGRAM PRODUCTS FOR
MONITORING USER BEHAVIOR FOR
A SERVER APPLICATION
Atty Docket: 1503/4/2

FIG. 60

6000

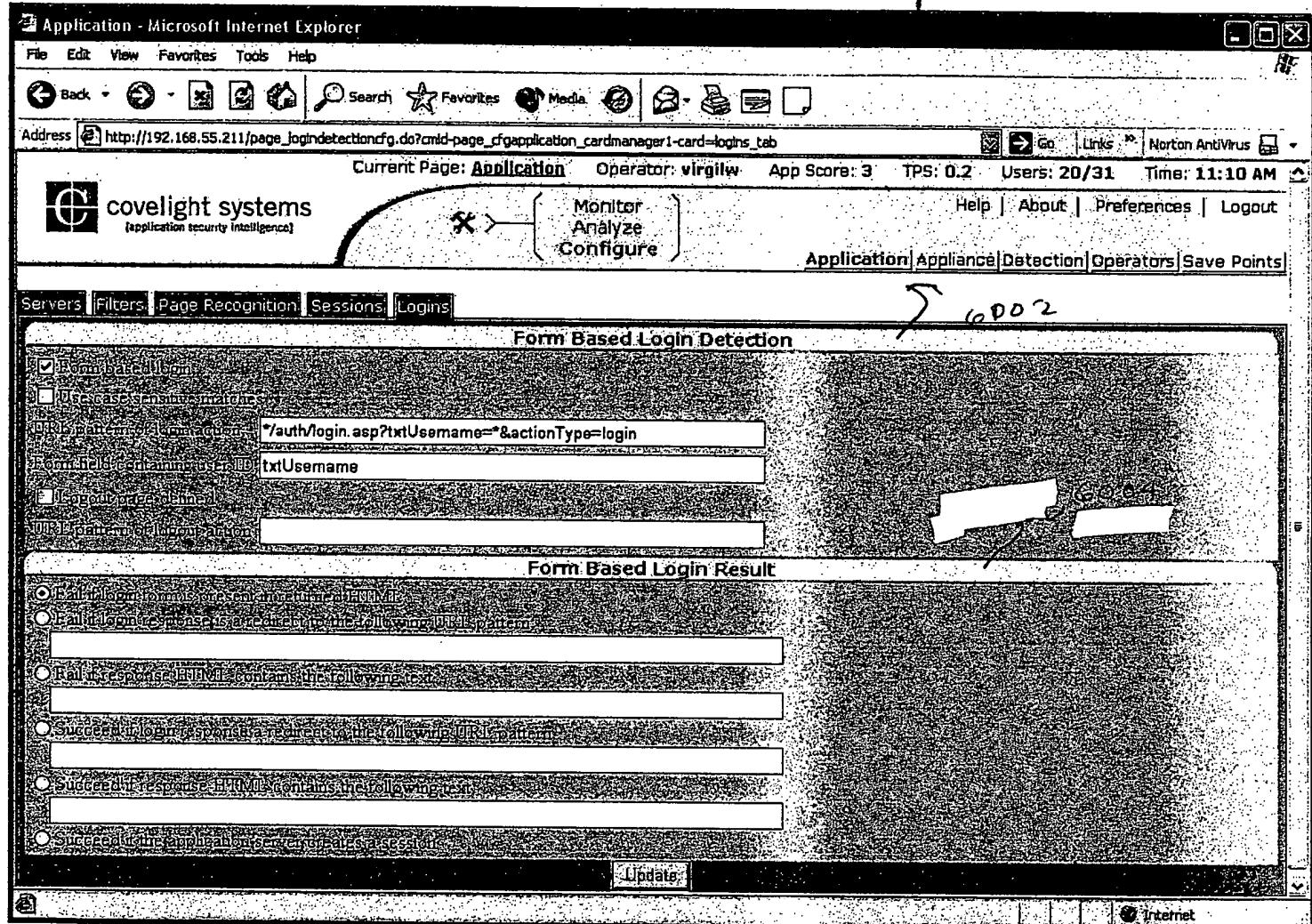


FIG. 61

6100

6102

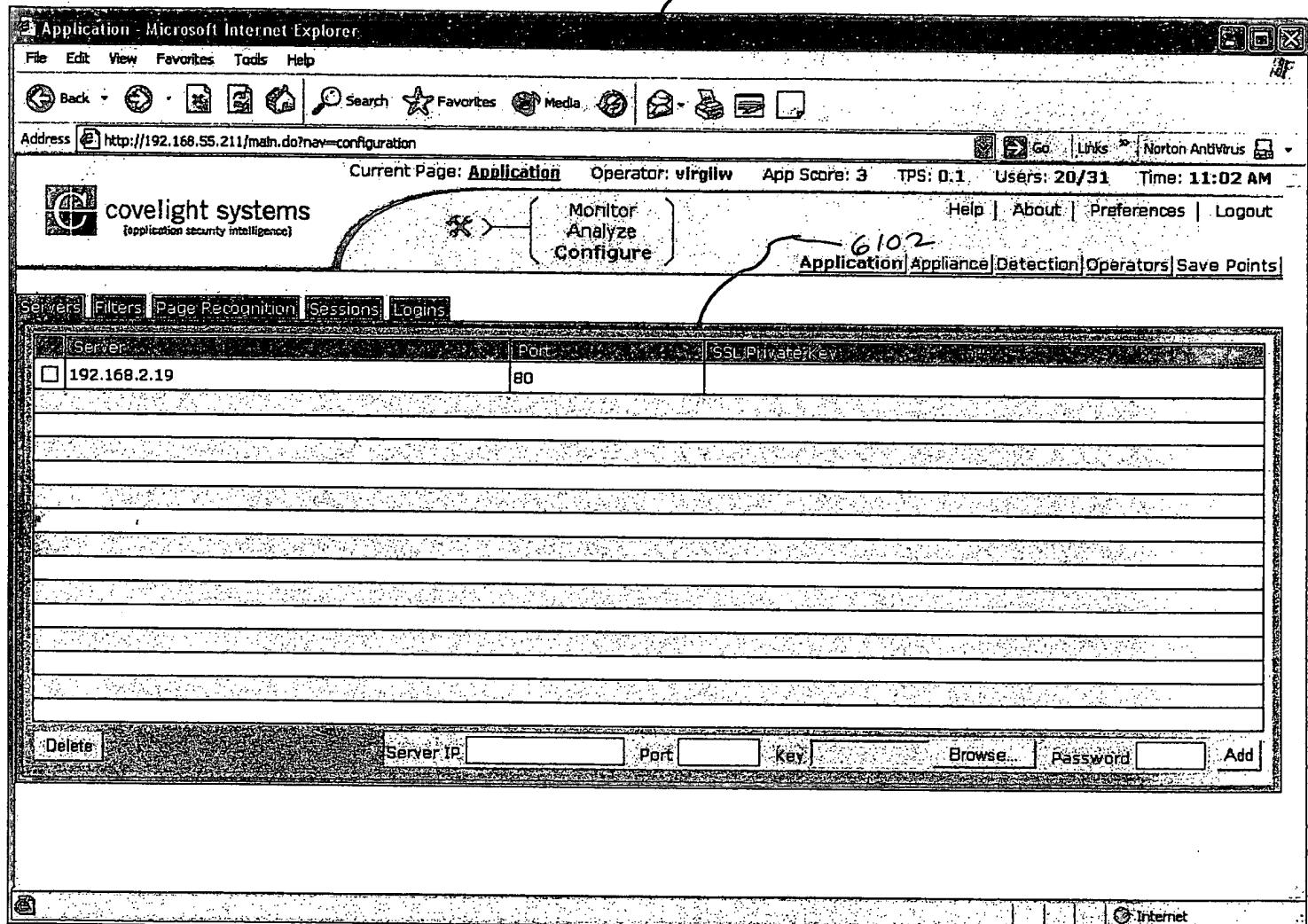


FIG. 62

Operators - Microsoft Internet Explorer

File Edit View Favorites Tools Help

Address: http://192.168.55.211/main.do?page=page_opsoperators

Current Page: Operators Operator: virgilw App Score: 3 TPS: 0.1 Users: 20/31 Time: 11:02 AM

covelight systems (application security intelligence)

Monitor Analyze Configure

Help | About | Preferences | Logout

Application Appliance Detection Operators Save Points

Accounts Mailing Lists Audit Log Reports

Operator Email Address

Operator	Email Address
<input type="checkbox"/> jhargett	
<input type="checkbox"/> kgramley	
<input type="checkbox"/> dsinnett	
<input type="checkbox"/> dmdurrett	mdurrett@covelight.com
<input type="checkbox"/> tash1	tash1@notarealsite.com
<input type="checkbox"/> laschmidt	
<input type="checkbox"/> tash	tash@notarealsite.com
<input type="checkbox"/> virgilw	
<input type="checkbox"/> mcarman	mcarman@covelight.com
<input type="checkbox"/> dlogan	
<input type="checkbox"/> admin	

6204 6202 6206

6208 6212 6210

Internet

FIG. 63

6300

6300

1

Operator Detail - Microsoft Internet Explorer

File Edit View Favorites Tools Help

Address: http://192.168.55.211/page_operatorscfg.do?rowlink=jhargett&tableIndex=0&tableId=page_operatorscfg.table1

Current Page: Operators Operator: virgilw App Score: 4 TPS: 3.3 Users: 23/31 Time: 11:33 AM

covelight systems (application security intelligence)

Monitor Analyze Configure

Help About Preferences Logout

Application Appliance Detection Operators Save Points

Operator Detail

Username: virgilw

Email Address: virgilw@covelight.com

First Name: virgilw

Confirm Password: virgilw

Administrative

Normal

Journal

Journal Maintenance

Transactions View

Update Cancel

6302

6304

6306

6308

6310

6312

Done Internet

Title: METHODS, SYSTEMS AND COMPUTER
PROGRAM PRODUCTS FOR
MONITORING USER BEHAVIOR FOR
A SERVER APPLICATION
Atty Docket: 1503/4/2

FIG. 64

6400

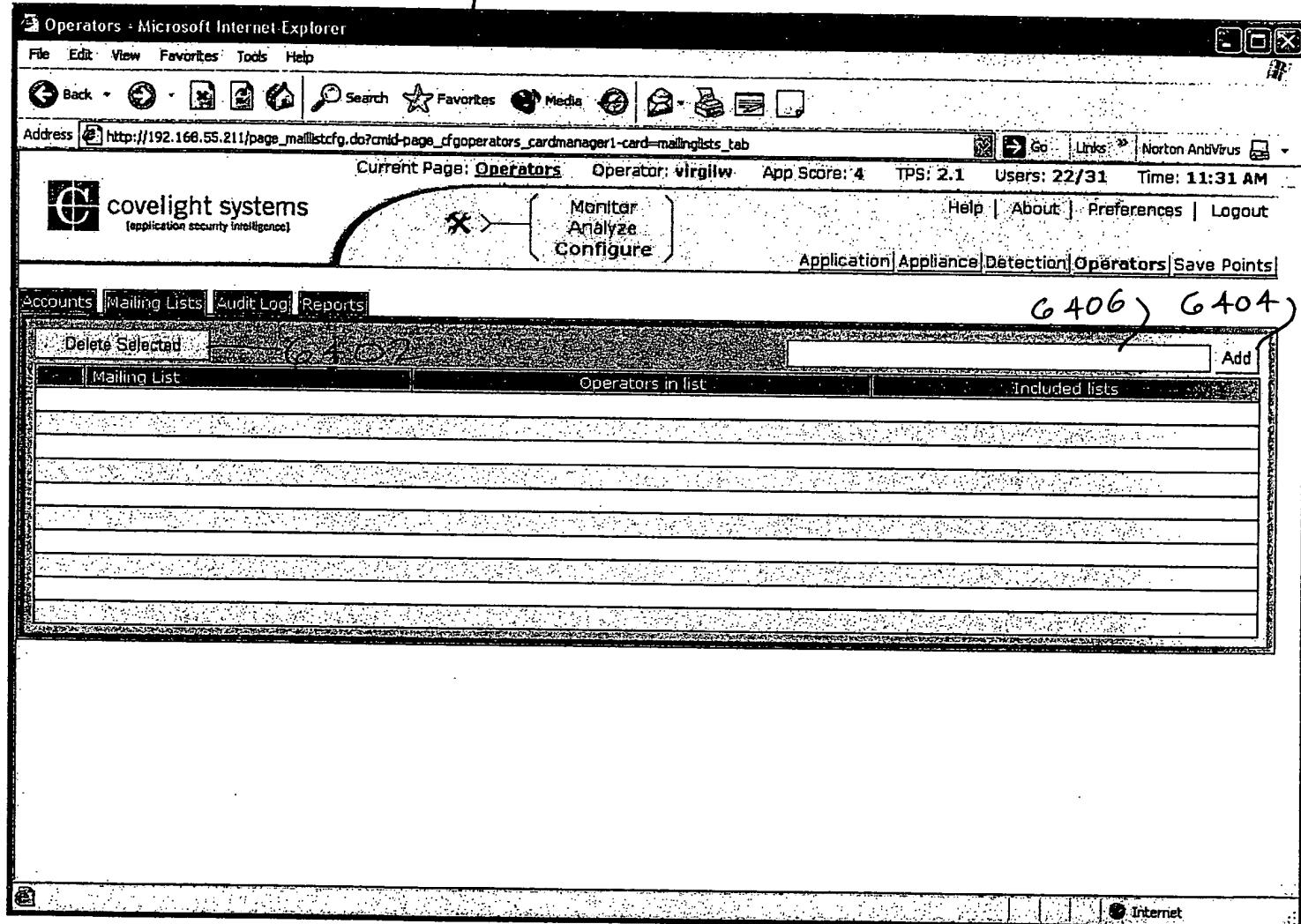


FIG. 65

6500

6512 6514

Operators - Microsoft Internet Explorer

File Edit View Favorites Tools Help

Address: http://192.168.55.211/page_operatorscfg.do?cmd=page_cfgoperators_cardmanager1-card=auditlog_tab

Current Page: Operators Operator: virgilw App Score: 4 TPS: 2.9 Users: 22/31 Time: 11:32 AM

covelight systems (application security intelligence)

Monitor Analyze Configure Help | About | Preferences | Logout

Application Appliance Detection Operators Save Points

Accounts Mailing Lists Audit Log Reports

Refresh Export CSV Export XML

Date Message IP Address Operator

Date	Message	IP Address	Operator
1/16/04 11:28 AM	Login successful	192.168.55.101	virgilw
1/16/04 10:57 AM	Login successful	192.168.55.101	virgilw
1/16/04 10:11 AM	Changed operator virgilw refresh rate to 30	192.168.55.17	virgilw
1/16/04 10:11 AM	Changed operator virgilw refresh rate to 30	192.168.55.17	virgilw
1/16/04 9:30 AM	Login successful	192.168.55.17	virgilw
1/16/04 9:27 AM	Login successful	65.81.86.237	dmdurrett
1/16/04 9:26 AM	Login successful	192.168.55.17	virgilw
1/16/04 8:47 AM	Login successful	65.81.86.237	dmdurrett
1/16/04 8:47 AM	Logout successful	65.81.86.237	dmdurrett
1/16/04 8:17 AM	Login successful	65.81.86.237	dmdurrett
1/16/04 7:37 AM	Login successful	65.81.86.237	dmdurrett
1/15/04 7:34 PM	Login successful	192.168.55.101	virgilw
1/15/04 7:34 PM	Login denied for admin	192.168.55.101	?
1/15/04 7:14 PM	Login successful	192.168.55.101	virgilw
1/15/04 6:34 PM	Login successful	192.168.55.10	dmdurrett
1/15/04 6:04 PM	Login successful	65.81.86.166	jhargett
1/15/04 5:46 PM	Login successful	65.81.86.237	admin
1/15/04 5:24 PM	Login successful	192.168.55.10	dmdurrett

Internet

FIG. 66

6600

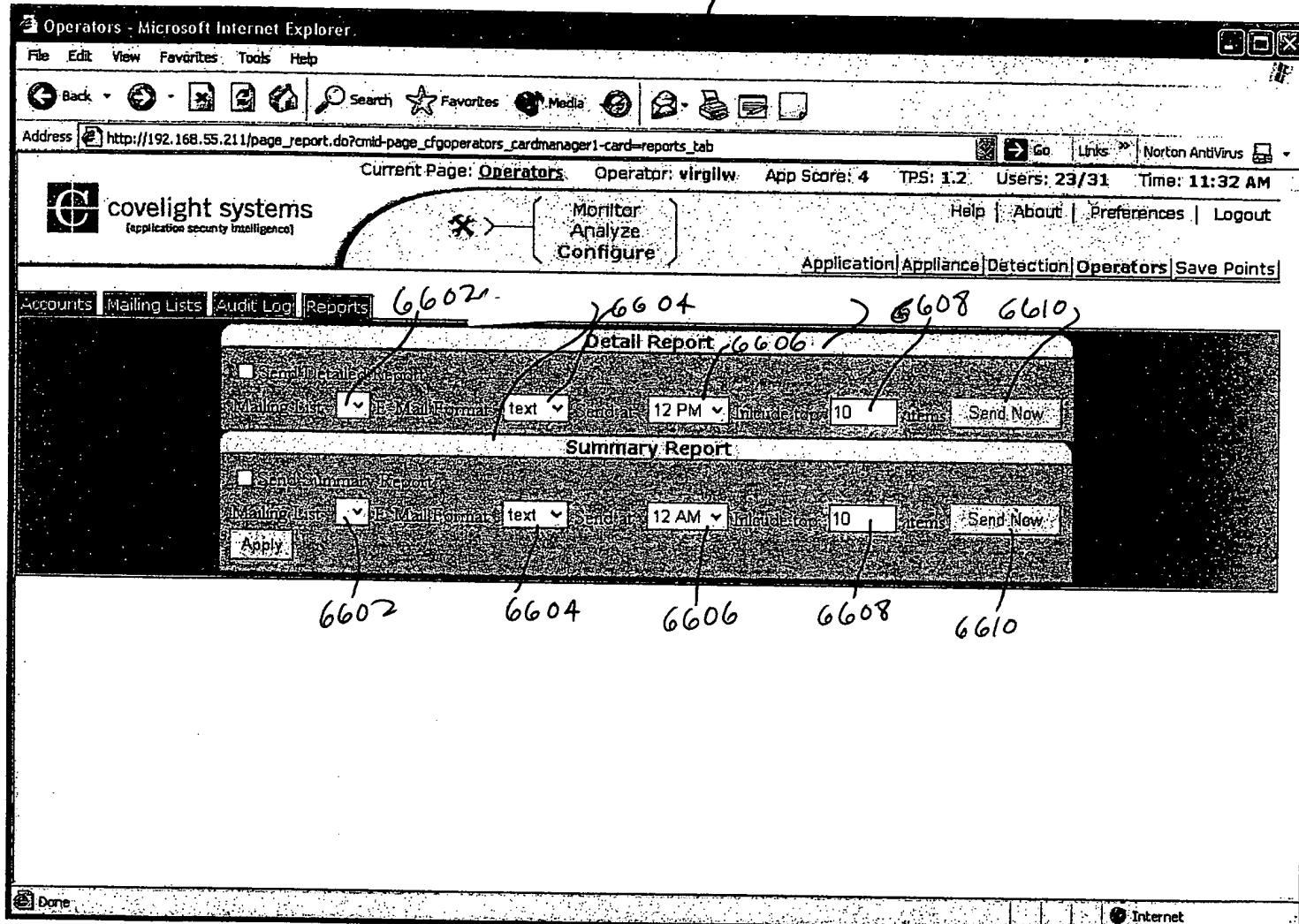


FIG. 67

6700

6700

1

Detection - Microsoft Internet Explorer

File Edit View Favorites Tools Help

Address http://192.168.55.211/mah.do?page=page_cfgdetection

Current Page: Detection Operator: virgilw App Score: 3 TPS: 0.1 Users: 20/31 Time: 11:02 AM

Back Favorites Media Go Links Norton AntiVirus

covelight systems (application security intelligence)

Monitor Analyze Configure

Help | About | Preferences | Logout

Application Appliance Detection Operators Save Points

Detectors Global Scoring Adjustments Access Lists

Show page 1 of 18 of 23

Name	Category	Score	Status
Abnormal node error rate	Application Errors	10	Working
Abnormal session duration	Application Misuse	10	Learning
Abnormal user session duration	Application Misuse	10	Working
Application request rate too high	Usage Policy	70	Working
Consecutive login failures	Authentication	30	Working
Disallowed IP address	Access Policy	10	Disabled
Encoded 8-bit character	URL Encoding	5	Working
Excessive individual HTTP errors	HTTP Protocol	40	Working
Excessive login failures	Authentication	10	Learning
Excessive total HTTP errors	HTTP Protocol	40	Working
Flagged user login	Access Policy	50	Working
HTTP buffer overflow	HTTP Protocol	80	Working
HTTP parsing error	HTTP Protocol	80	Working
Invalid % character	URL Encoding	50	Working
Invalid HTTP request	HTTP Protocol	80	Working
Invalid URL encoding	URL Encoding	80	Working
Invalid UTF-8 sequence	URL Encoding	20	Working
Invalid use of %%	URL Encoding	60	Working

6702 6704 6706 6708

Internet

Title: METHODS, SYSTEMS AND COMPUTER
PROGRAM PRODUCTS FOR
MONITORING USER BEHAVIOR FOR
A SERVER APPLICATION
Atty Docket: 1503/4/2

FIG. 68

6800

6800

6802

6804

6806

6808

6810

6812

Detector Detail - Microsoft Internet Explorer

File Edit View Favorites Tools Help

Address: http://192.168.55.211/page_detectors.do?rowLink=rate1%5C1&tableIndex=3&tableId=page_detectors_detectorTable

Current Page: Detection / Detector Detail Operator: virgilw App Score: 4 TPS: 0.4 Users: 23/31 Time: 11:37 AM

Norton AntiVirus

covelight systems (application security intelligence)

Monitor Analyze Configure

Help | About | Preferences | Logout

Application | Appliance | Detection | Operators | Save Points

Detector Detail

Name: Application request rate too high
Description: Detects when the overall rate of HTTP requests to the application is too high. The sensor takes samples of the transaction-per-second (TPS) throughput of the monitored application. When the value is higher than expected, it might suggest that an attack is progress or that

Enabled:

Event ID: Application throughput (TPS) is too high

Impact Score: 70

E-mail Alerts: (No distribution lists are defined)

Event ID: Application throughput (TPS) is too high

Impact Score: 1

Distribution Lists:

Detector Tuning

Background Interval: 1000

Transactions per Second (TPS):

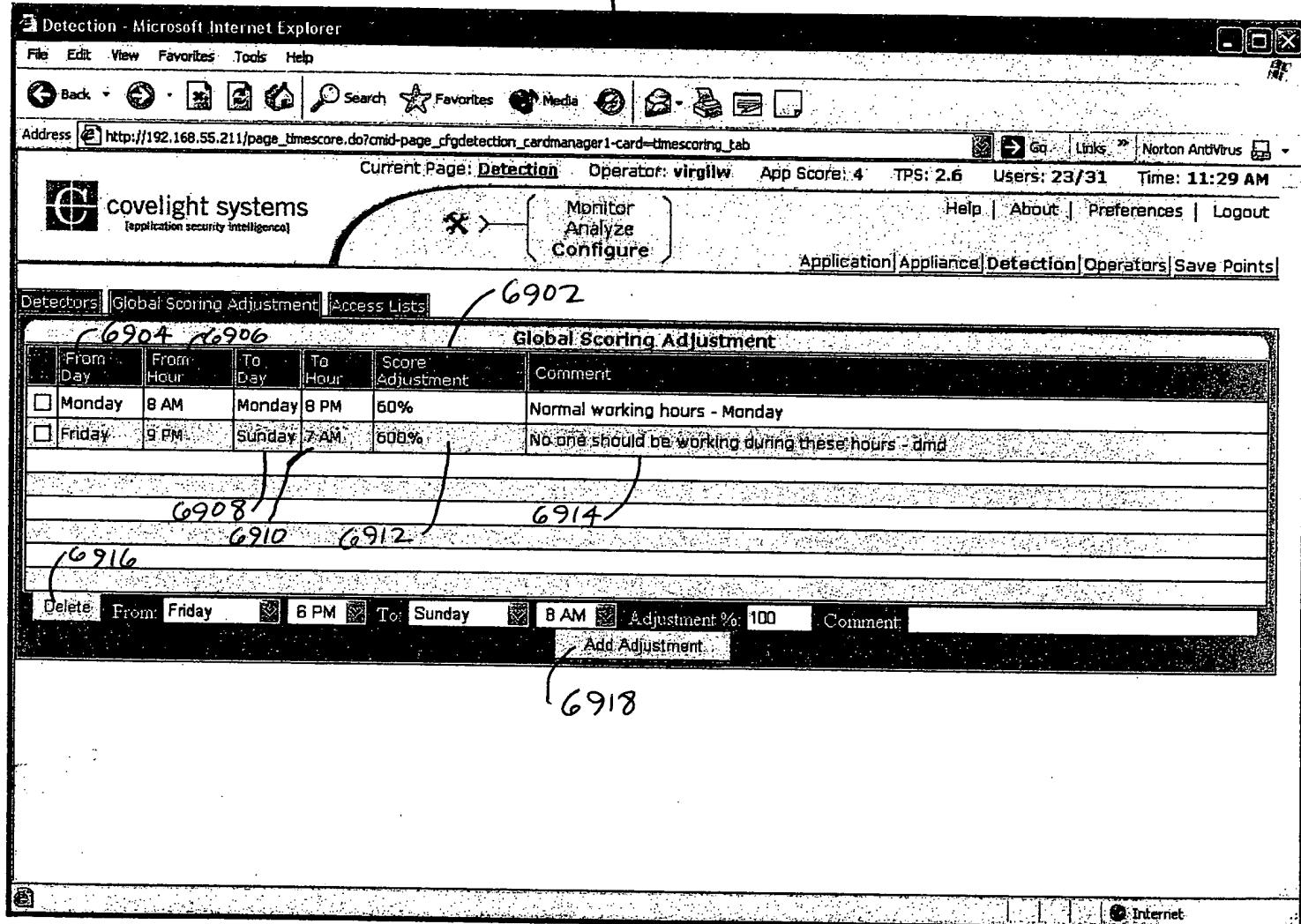
Apply

Done Internet

Title: METHODS, SYSTEMS AND COMPUTER PROGRAM PRODUCTS FOR MONITORING USER BEHAVIOR FOR A SERVER APPLICATION
Atty Docket: 1503/4/2

FIG. 69

6900



Title: METHODS, SYSTEMS AND COMPUTER
PROGRAM PRODUCTS FOR
MONITORING USER BEHAVIOR FOR
A SERVER APPLICATION
Atty Docket: 1503/4/2

FIG. 70

7000

7002 7004

7006

7008

Detection - Microsoft Internet Explorer

File Edit View Favorites Tools Help

Address: http://192.168.55.211/page_vals.do?cmid=page_cfgdetection_cardmanager1-card=accesslists_tab

Current Page: Detection Operator: virgiliw App Score: 4 TPS: 1.8 Users: 22/31 Time: 11:31 AM

covelight systems (application security intelligence)

Monitor Analyze Configure

Help About Preferences Logout

Application Appliance Detection Operators Save Points

Detectors Global Scoring Adjustment Access Lists

Name	Comment
<input type="checkbox"/> test	

Internet Create

Title: METHODS, SYSTEMS AND COMPUTER
PROGRAM PRODUCTS FOR
MONITORING USER BEHAVIOR FOR
A SERVER APPLICATION
Atty Docket: 1503/4/2

FIG. 71

